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NEWS SUMMARY

Soviet nuclear sub fire: nine die

Nine crew of a Soviet nuclear-powered submarine died in a fire which left the vessel crippled south of Japan. Japanese authorities warned ships to keep clear, although there have been no signs of radioactive leaks. The Soviets declined an offer of assistance from Japan, evacuating many of the crew to a Soviet ship which sped to the rescue. In the U.S., the private publication Armed Forces Journal says the U.S. has developed a fighter aircraft designed to be virtually invisible to Soviet radar. Page 4

Jerusalem vow

Israel vowed to retain Arab East Jerusalem forever despite a UN security council resolution condemning its formal annexation of the city. In southern Lebanon, Israeli and right-wing militia gunners shelled towns for the third day. Page 3

BR inquiry

British Rail has started an inquiry into an accident at a Cricketh, North Wales, level crossing in which a group leader and a girl aged 12 were killed and several other Manchester children hurt when they were struck by a train. Page 3

Drug warning

The Committee on Safety of Medicines is warning doctors that widespread use of the drug Clofibrate to prevent heart attacks is "potentially dangerous."

Police units claim

The police have a growing number of "para-military" support units, according to the magazine New Society. About one in 10 officers are now specially trained and the same number are trained to use guns.

Professor jailed

Professor Derick Corcoran, who holds the chair of psychology at Glasgow University, was jailed for 18 months after pleading guilty to throwing a petrol bomb at a shop which sacked his son.

Sixth Briton

Ian McArthur was named as the sixth Briton who died in the Saudi Arabia air crash. Five investigators have found two camping gas stoves in the plane's passenger cabin.

Ripper fear

Fears that the Yorkshire Ripper may have struck again were raised after a woman's body was found in the grounds of a house near Leeds.

Lawyers in demo

Hundreds of lawyers fled to the safety of Karachi's court compound as police used rifle butts, batons and tear gas to break up their anti-government march.

Waddell 'well'

British diplomat David Reddaway exchanged written messages with jailed Anglican missionary Jean Waddell. He was not allowed to speak to her. She said she was well-treated, but needed more books.

Keeper mauled

Brian Stocks, head keeper at club owner John Aspinall's private zoo in Kent, died after being mauled by a tigress.

Habit-forming

Religious orders in Spain, alarmed by a drop in numbers, are advertising in ecclesiastical magazines for recruits. The shortage is most acute in convents.

CHIEF PRICE CHANGES YESTERDAY

Prices in pence unless otherwise indicated)

RISES	FALLS
3PB 238 + 7	Steel 162 + 6
3PB 238 + 13	Thorn EMI 364 + 10
Booker McConnell 55 + 4	Unitech 347 + 21
British Sugar 263 + 8	Charterhouse Plrim 35 + 5
De La Rue 825 + 30	Shell Transport 424 + 4
Jowit 248 + 8	Alistair 400 + 37
erranti 417 + 17	Ashton Mining 370 + 30
Freemall Whitley 220 + 10	Ayer Hitam 400 + 37
Harri (Queensway) 147 + 10	Crociotti 400 + 37
IK & Kowloon WF 730 + 35	Osler Expln 82 + 8
J.L. Higgs 355 + 37	Poseldon 238 + 12
Jetal Box 295 + 8	President Steyn 221 + 1
Alfing Supplies 148 + 8	Rustenburg Plst 280 + 10
Althorpe 250 + 12	Tanks 347 + 9
edland 180 + 8	Whim Creek 96 + 6
edland 180 + 8	
almsbury (J.) 468 + 12	

Union reform issue halts Polish bid to settle strikes

BY CHRISTOPHER BOBINSKI IN GDANSK

THE POLISH authorities' attempts to negotiate with individual plants in the strike-ridden Gdansk region appeared to have foundered last night over the Government's refusal to give firm guarantees that it would reform the official trade union organisation.

Mr. Tadeusz Pyka, a deputy premier who has been conducting negotiations with delegates from some of the striking plants in the Baltic coastal region, was replaced yesterday by a more senior deputy premier, Mr. Mieczyslaw Jagielski, after signs that he had been prepared to offer the strikers concessions going well beyond what the Communist Party leadership is willing to contemplate.

But after the failure both of Mr. Pyka's attempts at mediation and of the televised appeal to the strikers by Mr. Edward Cierlek, the Communist Party leader, there were indications that the plenum of the party's central committee, its highest decision-making body, will hold a meeting by the end of this week at which fresh policies aimed at mollifying the striking workers will be discussed.

Earlier this week an official commission headed by Mr. Pyka conducted talks in Gdansk with delegates from 17 striking plants in a move designed to undermine the inter-factory strike committee (MKS) which is co-ordinating the strike action on behalf of over 300 factories and enterprises. The authorities have refused to talk to the MKS, which they consider does not represent striking workers.

But terms negotiated by Mr. Pyka's commission with the 17 plants were partially rejected by the Government and most of the plants involved then withdrew from the talks.

The Pyka talks produced a far-reaching set of economic concessions, including wage increases, regular rest of living increases and markedly higher pensions for old people.

On the central issue of independent trade union activity, Mr. Pyka pledged that changes would be introduced at the Trade Union Congress in November. Until then, the "strike committees would remain in being pending the acceptance of a new trade union constitution which would ensure them a real influence on working-class problems."

This was not acceptable to the Government, which proposed that "after a return to work, the strike committees will be co-opted into the existing trade union councils and this will ensure them an influence on working-class problems."

This formula, which lacks the guarantees the strikers regarded as necessary to make them credible, shows that the authorities are still not willing to undertake serious negotiations on the crucial issue in the general strike in Gdansk—whether the foundation of an independent trade union movement can be laid in Poland.

After his arrival in Gdansk, Mr. Jagielski in a radio broadcast invited the strikers for talks, in which he would explain why certain political demands "were impossible to fulfil." But yesterday there was no sign that any delegation was prepared to risk breaking solidarity with the MKS, which has demanded to be recognised by the authorities, and to start talks with the Government.

In an apparent change of tactics, the authorities have begun to refer openly to the strike in the mass media. The economic cost of the stoppages is being stressed in an attempt to turn public opinion against the strikers.

The authorities plainly hope to put the responsibility for the strike on this small group, which has in the past collected information on strike actions. Some of its members have been playing an important role in the Gdansk MKS. The arrests could also be a move by Mr. Cierlek to forestall criticism that he has tolerated the group since it was set up in 1976.

In Gdansk, the MKS did not formally protest at the detentions, but Mr. Lech Walesa, a strike leader, told a crowded hall of applauding delegates that "we must not allow the authorities to destroy KOR. That would be a misunderstanding."

Warsaw pact exercises, Page 4

Oil stocks 'at record 5bn barrels' as demand falls

BY SUE CAMERON

CRUDE OIL stocks outside the Communist bloc are at a record 5bn barrels—enough to last for 100 days, according to Mr. Peter Baxendale, chairman of "Shell" Transport and Trading, the UK arm of the Royal Dutch/Shell group.

But Mr. Baxendale, at a Press conference in London yesterday, admitted demand for oil products such as heating oil, fuel oil and petrochemical feedstocks had declined "rapidly" by 5 per cent in the first half of this year compared with the same period last year. The drop in demand over the period had been particularly marked in the UK—at about 12 per cent—because of the number of power stations switching from fuel oil to coal.

He stressed that the major oil companies were "reluctant" to reduce their crude purchases in spite of the weakness of the market for refined products. They were worried that, if they ended their contracts with the producing countries now, they might not be able to revive them in the event of another shortage of crude supplies.

There was concern in the oil industry over the future production policies of members of the Organisation of Petroleum Exporting Countries (OPEC) particularly Saudi Arabia. The volume of Saudi crude was "quite critical."

Mr. Baxendale said it was expected that OPEC members would try to agree common price levels when they meet in November in Baghdad. Saudi Arabia might then decide to cut its crude production by 1m barrels a day or more. Other OPEC members—or even non-OPEC members—might also decide to reduce their output. This could lead to fears among consumers that crude shortages might develop. Such fears could boost prices.

But Shell believed that crude output could be cut by at least 2m barrels a day before the market began to be really anxious about supplies.

The Royal Dutch/Shell group itself suffered a £30m drop in its reported net income during the second quarter of this year compared with the same period in 1979. Reported net income for the quarter was £680m as against £710m last year. After adjustments for currency gains of £20m and for stock profits of £150m—the underlying net income for the second quarter of 1980 was £440m.

Figures from Shell yesterday illustrate the fall in demand for oil products. In the first six months of this year the Royal Dutch/Shell group sold 4.365m barrels of oil products a day—10 per cent less than the 4.853m barrels a day of products sold in the same period in 1979. The group's sales of oil products in the second quarter of this year were 7 per cent down on the April to June sales of 1979.

In the first half of 1980 sales of gasoline fell by 5.3 per cent, kerosenes by 7.3 per cent, gas/diesel oils by 15 per cent and fuel oils by 13 per cent compared with the first half of 1979.

Reed Paper to cut 700 jobs

BY WILLIAM HALL

REED PAPER and Board (UK), Britain's biggest paper-maker, is axing 700 jobs at its main UK site at Aylesford, Kent. The cuts come only two days after Bowater, the other big producer, announced closure of its Ellesmere Port mill, Cheshire, with loss of 1,800 jobs.

Reed's Aylesford complex is the biggest paper and packaging manufacturing site in Europe. Closure of three of nine paper-making machines will reduce output by 40 per cent to about 190,000 tonnes a year, and cut numbers employed on paper and packaging manufacture to 1,000.

The last major cuts were in 1971, when there were 1,000 redundancies. Mr. Jonathan Benn, chairman and chief executive of Reed Paper and Board (UK), said yesterday that the problem was caused by high costs of raw materials and, especially, energy, and by low selling prices. He said that on energy costs the UK appeared at an "almost unique disadvantage."

"The impact of these factors has been particularly severe at Aylesford Paper Mills, where newspaper and multi-ply liners account for 180,000 tonnes of the mill's 320,000 tonnes annual capacity."

In the first three months of its current financial year Reed International's UK trading profits dropped from £21.5m to £1.5m.

Continued on Back Page
Meriden jobs lost, Page 5

Investment and Stocks

—manufacturing, distributive and service industries

£m at constant 1975 prices

Year	Capital spending (excluding shipping)	Change in stock
1974	8,257	-1,427
1975	7,373	-1,456
1976	7,271	+722
1977	7,923	+1,064
1978	8,799	+648
1979	9,536	+765
1980 1st	2,329	+647
2nd	2,396	-234

All figures seasonally adjusted
Source: Department of Industry

Industry invests 5% over estimate

By Peter Riddell, Economics Correspondent

CAPITAL INVESTMENT by industry has recently been substantially higher than previously estimated, and so far this year spending has held up better than expected.

Department of Industry figures published yesterday show that in the last 18 months volume of capital investment by manufacturing, distributive and service industries has been roughly 5 per cent higher than previously thought. This follows the inclusion of revised data.

Spending has remained relatively strong even compared with last year's record level. Investment in both the first and second quarters of this year was just under £2.4bn at constant 1975 prices and seasonally adjusted. This was only 1 per cent less than the average level in the second half of last year.

Capital investment tends to lag behind changes in the economic cycle, and spending could fall much more sharply in the next 18 months. The Confederation of British Industry has only recently become more gloomy about the investment outlook.

The upward revision of the figures for the last couple of years is significant in view of the low profitability of industry.

The volume of industrial investment rose by 31 per cent from 1976 to 1979, despite the cuts in British Steel's spending.

This contrasts with the

Continued on Back Page

£ in New York

	Aug. 20	Previous
Spot	\$2.3600-3700	\$2.3525-3525
1 month	1.53-1.48 dis	1.40-1.35 dis
3 months	1.56-1.50 dis	1.16-1.10 dis
12 months	7.00-6.56 dis	5.75-5.60 dis

Public sector borrowing hits record £4.5bn

BY PETER RIDDELL

PUBLIC SECTOR borrowing was a record £4.47bn in the first three months of the financial year. This is more than half the £8.5bn total forecast for the whole of 1980-81.

The high level of borrowing reflects the combination of a surge in spending by local authorities and the Defence Ministry, and a squeeze on the financial position of nationalised industries.

Whitehall officials were quick to say yesterday that the April to June figures provide no guide to the prospects for 1980-81 as a whole, and that there are several special factors.

In particular, officials said that, while the figures are adjusted for seasonal variations in tax payments, they do not take into account the rising trend of Petroleum Revenue Tax, the £500m refund on contributions in the EEC Budget due later in 1980-81, and a further £500m due from sales of public sector assets.

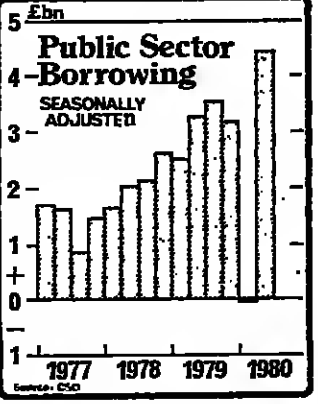
Moreover, exchequer revenue from wine and spirit sales may have been exceptionally depressed after the Budget.

Consequently, officials believe it is far too early to assess the outcome for the full year.

City analysts are less inclined to be charitable about the figures. Borrowing between April and June was higher than expected, and many stockbrokers believe the 1980-81 forecast will be exceeded by £1bn to £2bn.

This is after taking account of both the various special factors and Whitehall hopes that defence spending, which is £400m above target, will be reduced in line with the revised cash limits.

The detailed figures show that public corporations, mainly nationalised industries, borrowed £1.01bn, seasonally adjusted, between April and June, compared with a total of £2.76bn in 1979-80. Borrowing by local authorities was £578m in the quarter, compared with an exceptional £1.62bn in the previous three months and a total of £2.94bn in 1979-80.



Dutch 'most heavily taxed'

BY TIM DICKSON

WAGE EARNERS in the Netherlands and Sweden are among the most heavily taxed in the West, a new Inland Revenue study of personal taxation levels suggests.

In a sample of eight nations, the French appear to get off most lightly, while the UK and West Germany are midway down the league table.

The comparisons, based on 1980-81 tax rates, include social security contributions but ignore indirect and corporate taxation, and are therefore not a complete guide to the relative burdens imposed by national exchequers.

The review is based mainly on multiples of the Average

Production Workers' earnings in France, West Germany, Italy, Japan, the Netherlands, Sweden, the U.S. and the UK. It shows that, on average, production workers, married, but without children, pays direct taxes at an effective rate of 26 per cent in the UK, compared with 33 and 34 per cent in Sweden and the Netherlands respectively, but only 15 per cent in France.

Comparisons based on the equivalent purchasing power in a smaller sample of countries of the same person earning £6,000 a year show the Netherlands still on top at 31 per cent, with the UK and West Germany next on 26 per cent.

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EUROPEAN NEWS

FRENCH FISHERMEN CONTINUE TO BLOCKADE HARBOURS

Navy threat raises fears of ports violence

BY DAVID WHITE IN PARIS

THE THREAT of a violent confrontation still hung over the French ports dispute yesterday after a warning by M. Raymond Barre, the Prime Minister, that he would use the navy if necessary to ensure oil supplies.

Fishermen's representatives and local authorities were meeting at Martigues, near Marseilles, to discuss a possible settlement which would lead the blockade of the key oil terminal at Fos-sur-Mer, to be lifted.

In Channel ports, the fishermen's dispute continued to prevent ferry traffic between France and England.

Prefects of French coast regions are due to hold talks on Saturday on the specific problems of local fishermen to present proposals to the Government. These may then go to the French Cabinet next Wednesday.

After an abortive meeting last Wednesday with M. Joel Le Thuau, the Transport Minister, M. Bernard Dubreuil, president of the Central Sea Fishing Committee, said he was sceptical about the regional meetings, adding that they seemed to be intended to divide the fishermen's movements. The fishermen

want a 29 per cent reduction in the price they pay for diesel oil, which is already subsidised, offset by an increase in the price for other users.

M. Le Thuau, meanwhile, has written to Mr. Fijn Olav Cundelach, the EEC Agriculture and Fisheries Commissioner, asking for work on a European fisheries policy to be speeded up.

The dispute yesterday was blocking access to oil terminals near Marseilles, the starting point of a pipeline network to central and eastern France and to parts of West Germany. Supplies to the Donges refinery near

Saint Nazaire on the Atlantic coast have also been affected. France has oil stocks equivalent to about 100 days' supply, but after 10 days' cut-off, it would be delving into its strategic reserve.

The conflict's political implications have grown further as a result of the threat of naval intervention. Unions have condemned the move, which the Communist party called "scandalous." M. Jacques Blanc, secretary-general of President Ciscard d'Estaing's small Republican party, hit back by accusing the Communists of trying to disorganise France's

economy. The biggest French shipping line, Compagnie Generale Maritime, yesterday threatened to send all its ships to foreign ports. It said it had lost FF4.4m-6m (£400,000-£600,000) so far in the conflict.

Fishermen lifted their blockade temporarily in several ports yesterday to allow yachtsmen to pass through. In Roscoff, Brittany, a car ferry was allowed to dock after two days' wait. Rouan in Normandy was freed after three ships broke the blockade.

Editorial comment, Page 16

French and Danes may delay EEC fish deal

BY MARGARET VAN HATTEM IN BRUSSELS

THE plight of the thousands of British holidaymakers stranded in France's northern fishing ports may have helped convince the British public far more effectively than any ministerial wrangling in Brussels, that Britain's are not the only fisherman with problems.

When negotiations for an EEC common fisheries policy resume this autumn, the problems of the French and Danish fishing industries may prove an even greater obstacle to progress than the British intransigence which has stalled negotiations for almost four years.

The British may even find themselves in the opposite camp, fighting with the European Commission to force a common policy that will conserve and manage depleted stocks within the EEC's 200-mile limit and end the virtual free-for-all.

Time is beginning to run out for the British. Their preferential rights in British coastal waters expire at the end of 1982, and they hope to get some form of preference written into the agreement. The alternative would be equal

rights for all EEC fishermen right up to Britain's beaches.

Britain has one of the two biggest fishing industries in the Community and has more to gain from an equitable common policy and more to lose from a

meeting in Luxembourg in July. Britain was offered quotas equal to 31 per cent of the main fish species. Mr. Peter Walker, the British Minister, rejected this as too low. But he gave no support to British fishermen's

of the Norway port box, where industrial fishing is banned, have been ruled illegal by the European Court of Justice. But Brussels officials see room for compromise on some of these measures: others, they suggest, may have been forced on the Government by its hard-line Labour predecessor, in which case the court rulings supply an alibi for their abandonment.

The question of access may prove more tricky. Britain wants exclusive rights for its fishermen up to 12 miles from the coast and preferential rights up to 50 miles. Just how preferential these rights should be is not being spelled out.

These questions will be taken up when talks resume next month but the absence of hard line statements recently, seen in the context of progress of British budgetary dispute with its EEC partners, has fuelled hopes in Brussels that the British fisheries problem may be close to resolution.

That this alone may not be enough to produce an agreement, however, is becoming increasingly clear. "The British are talking more realistically these days," comments one

senior Brussels official. "The real problem in the next six months is likely to be the Danes. Any common policy is likely to curb their activities. So far, they have not needed to be obstructive—the British have done their work for them—but they may soon be forced into the open."

The Danes have a large industrial fishing industry dependent on the North Sea. It provides many jobs but, critics claim, depletes breeding stocks.

The Danes are anxious to preserve their present de facto share and will be fighting hard alongside the Irish, French and British.

What matters most to fishermen, and hence to the Ministers who represent them, is the amount of fish they will be able to catch over the next season. The commission may even be tempted to raise the limit on the total catch if this helps Ministers reconcile their constituents to the final agreement.

For as the French blockaders have demonstrated in the past fortnight, a rebellious fishing fleet is a force to be reckoned with.

East bloc manoeuvres 'a crucial test'

By Leslie Collett in Berlin

EAST GERMANY'S Defence Minister, General Heinz Hoffmann, has told East German tank troops that the 40,000-man Warsaw pact manoeuvres set for the first part of September in his country will take place in a "complicated and tense situation" and will contribute toward "defending Socialism."

The Government news agency yesterday emphasised that "anti-socialist elements" had taken over the Polish strike movement and were endeavouring to undermine Poland's social order.

His speech came on the 12th anniversary of the Russian invasion of Czechoslovakia ending the "Prague Spring" of 1968 which also involved workers' calls for independent unions and free speech.

The manoeuvres, code-named "Comradeship in Arms 80" were originally designed to be the Warsaw Pact's reply to NATO's "Antum Forge" exercises and will run parallel to them. Since they were planned, however, Poland, whose army is scheduled to participate, has been engulfed by a political crisis.

Gen. Hoffmann told the tank troops that the manoeuvres will be a "crucial test in the class struggle." The motto of the exercise, he said, is: "United for peace and socialism—don't give the enemy a chance."

The military exercises, which will involve amphibious naval units from the Soviet Union, Poland and East Germany, will be the largest the Pact has held since 1970. All the Warsaw Pact countries will contribute troops except Romania, which refuses to allow other troops on its territory. It will send only staff officers to East Germany.

Whether the Soviet Union will transport its troops by sea to the manoeuvres or by rail through Poland, is not known.

The strike wave in Poland has moved to within six miles of the East German border, shutting down factories, docks and public transport in the port city of Szczecin on the Oder River. A steady stream of Poles is crossing into East Germany to buy food, petrol and other necessities.

Polish union support

Support for Polish workers to their courageous and inspiring struggle has been affirmed by the International Federation of Chemical, Energy and General Workers' Unions (ICEF), John Wicks writes from Zurich.

Italian balance of payments shows £424m July surplus

BY RUPERT CORNWELL IN ROME

ITALY'S BALANCE of payments showed a heavy surplus last month, the first time it has been in the black since October, 1979.

A July surplus is traditional here as foreign tourism revenues reach their summer peak. But last month's £424m (£424m) far exceeds the £254m surplus in the same month of 1979. It reduces the total deficit for this year to £1,361m (£1,671m) from the £4,216m shortfall between January and June.

In fact, the £1,608m overall improvement in the Bank of Italy's foreign holdings in July was almost double the payments surplus, thanks to an additional £1,843m inflow through the commercial banking system, as Italian corporations continued their heavy borrowing programmes.

In a statement last night the Bank pointed out that the pay-

ments deficit had been more than covered so far by such borrowings abroad, which reached £3,984m in the first seven months. Italy's high rating as a borrower and the present liquidity in the Euro-markets suggest that the trend is unlikely to change.

The payments figures, none the less, came too late to prevent a further slide of the lira yesterday, after a week of sporadic pressure and rumours of a devaluation. The dollar rose three points to £854 at the official fixing, while sterling hit another record at £2,024.4. Other major European currencies also moved ahead.

It is pointed out here that the lira still has not reached its floor in the European monetary system and that the non-dollar component of the country's reserves provide almost £119,000m potential ammunition to defend the exchange rate.

IAEA report 'favourable' to Basque nuclear plant

BY ROBERT GRAHAM IN MADRID

THE INTERNATIONAL Atomic Energy Agency has given a generally favourable report on the controversial Lemóniz nuclear power station being built in the Basque country.

The head of the Basque government, Sr. Carlos Garaicoechea, said that although the report contained some criticisms of the plant, these could be resolved easily. The report is being circulated to members of the Basque Parliament and Sr. Garaicoechea said it will be published.

Since work started on the plant, ten miles from the centre of Bilbao, in 1972, it has been a constant source of conflict. There have been frequent demonstrations and protests, and terrorist attacks by ETA, the militant Basque separatist organisation, have caused over £5m worth of damage to the installation, which is being built

by the private utility, Iberdruero.

The newly elected Basque Nationalist party government has sought to limit off controversy. Previously, the party fully endorsed the idea of a referendum on whether Lemóniz should be allowed to operate. But more recently, it has argued that nothing should be done until the contents of the IAEA report were known. The party's leadership realises that Madrid would be reluctant to concede a referendum and even more reluctant to see Lemóniz paralysed.

Iberdruero has spent more than Pta 90bn (£520m) on the project and the first of the two 830 MW units is due to start operating next March. The company has warned that there would be a serious national power shortage if the project were halted.

North Sea gas emergency

BY FAY GJETER IN OSLO

A DRILLING rig working in Norway's part of the North Sea had to be moved hastily from its site yesterday after the drill encountered an unexpected gas pocket. The rig Norkald briefly developed a marked list during the move, but this was soon righted and none of the 71-man crew was injured.

The day of us from the well

stopped after about two hours and emergency routines were called off. It is not clear, however, when work on the well can be resumed.

Statoil, the national oil concern, said the well head would have to be inspected. Norkald is drilling for Statoil in the so-called "golden block" of the Norwegian North Sea.

Greeks hit at foreign companies

By Our Athens Correspondent

MULTINATIONAL companies in Greece are increasingly becoming the target of bomb attacks by extreme Left-wing groups which claim the companies make excessive profits.

Two home-made bombs exploded in Salonica yesterday, damaging branch offices of Citibank and Shell and a British Petroleum filling station.

An organisation calling itself "Revolutionary Left" has claimed responsibility for seven bombings in Athens last month, most of them directed against large industrial concerns, including Siemens, of West Germany. Leaflets were distributed saying the attacks were in protest against the high cost of electricity and other basic items.

The opposition daily newspaper *Eleftherotipia*, meanwhile, has alleged that 2,000 undercover agents are working in Greece for the U.S. Central Intelligence Agency. It named Colonel Everett Mardar, military attaché at the U.S. embassy here, as the CIA's station chief for the Balkans and the Middle East. The newspaper added that Col. Mardar had replaced Richard Welch, the CIA station chief assassinated in Athens in December, 1975.

It also listed 141 U.S. companies with offices in Greece and accused them of helping the CIA.

The bombs and Press allegations come at a time of considerable anti-U.S. sentiment among Greeks, who are incensed at what they consider Washington's inability to curb Turkish intrusions over the Cyprus issue and its prevention of Greece's return to the military wing of NATO.

Dutch earmark £6.5m aid for textile industry

BY CHARLES BATCHELOR IN AMSTERDAM

THE NETHERLANDS has announced a £130m (£6.5m) aid programme to help its hard-hit textile industry modernise and increase exports over the next three years. The textile sector has declined more rapidly in the Netherlands than in any other European country in recent years, with earlier aid programmes achieving only limited success.

The Government will provide £125.6m (£5.5m) to the cotton, rayon and linen industries and £14.4m (£50,000) to the wool sector to cover the three years up to the end of 1983, to

improve prospects in both traditional and new markets, according to the Economics Minister, Mr. C.J. van Aardenne.

Aid will be available in five categories:

- The Government will pay half the wage and social security costs and business expenses of textile company export managers for the first 12 months' employment, up to a maximum of £10,000 (£13,000). Elsewhere similar subsidies only apply for six months.
- Subsidy of 20 per cent for investment aimed at diversifying a company's product range

or improving quality.

- The same percentage will be paid to meet the cost of removing equipment to achieve diversification or improve quality.
- The scheme will meet 40 per cent of costs at trade fairs and exhibitions.
- The modification or demolition of buildings to diversify production or improve quality.

This aid will be reduced if any company is already eligible for other general subsidies which meet more than half the cost of investments. Spending of less than £10,000 (£12,100)

will not qualify for aid. The Government has asked the European Commission to approve the latest aid programme.

A recent Government review of the Dutch textile industry showed that output levels and employment have fallen more quickly than in any other European country.

Output fell by 15 per cent between 1970 and 1976, compared with a 7 per cent average increase in the EEC as a whole. Employment fell by 34 per cent between 1973 and 1978 compared with a 22 per cent decline in the EEC.

The experiment in non-Socialist government has reached a critical stage, writes William Dullforce in Stockholm

Swedish economic policy under fire from all sides

LESS THAN a year after Sweden's non-Socialist coalition had prised the Social Democrats out of a 44-year rule, it devalued the krona, stimulated the export industries and averted an economic crisis.

Since then—August, 1977—its economic actions have been hesitant, stumped with compromise, and unconvincing.

This year, after a traumatic national referendum in March on nuclear power, Mr. Thorbjörn Fälldin, the Prime Minister, concentrated on proving his Government's competence to manage the economy.

In May, Sweden experienced the biggest industrial dispute in its history, with 10 days of strikes and lockouts followed by a dockers' strike.

On Tuesday, Mr. Fälldin appeared at a Press conference to announce a 1.9 per cent increase in value added tax. He

was without the usual accompaniment of his colleagues from the Conservative Party, headed by Mr. Gösta Bohman, and the Liberal Party, headed by Mr. Ola Ullsten. His announcement, translated into retail terms, means that Swedes will be paying VAT of 23.45 per cent, the highest in Europe, on nearly 60 per cent of the goods and services they consume.

Far from being regarded as a resolute attempt to correct imbalances in the economy, the three-party coalition's action has been criticised from all sides, including both industry and the unions.

Svenska Dagbladet, a staunch champion of the non-Socialists, described it as a purely defensive move. "Where are the offensive components to bring about the industrial revival which everybody recognises to be a compelling necessity?" the daily demanded.

Mr. Curt Nicolin, industrialist and chairman of the Swedish Employers' Association, commented in similar vein. He was asked whether he doubted the Government's ability to solve the country's economic problems. "Let me say that it appears to be very impressed by the fact that it has a majority of only one in the Riksdag (parliament)," he replied.

The credibility of Mr. Fälldin's coalition is at a very low ebb. The same could be said of the effort to inject non-Socialist principles into Swedish society, despite the fact that a majority of Swedes opposed socialism at the last two general elections.

The 1.9 per cent VAT increase represents a compromise with the Social Democrat opposition. The Government's original intention had been to raise VAT by 2.9 per cent.

It will now supplement the lower tax increase by raising excise duties on spirits, tobacco and possibly petroleum products, at the Oppsvittning's suggestion. It has also acceded in the Social Democrats' demand for an extraordinary session of the Riksdag next week to discuss the economy.

Mr. Fälldin is torn between his stated long-term aim of improving the conditions for private enterprise and industrial

activity, and his desire to reach an understanding with the Opposition which could deflect another potentially disastrous confrontation between employers and unions early next year.

With his latest mini-package he runs the risk of achieving neither. Mr. Gunnar Nilsson, chairman of the blue-collar union federation, has already reiterated his opposition to any VAT increase, which he claims casts away the income improvements his members won in May.

To be fair to Mr. Fälldin, he did emphasise that the increase in indirect taxes were only part of broader stabilisation programme planned by the Government. In October it will submit proposals to cut public spending by 5Kr 7bn (£710m).

But industry remains sceptical whether the savings planned will be translated into stronger incentives for investment and industrial expansion. Its scepticism is based on the Government's record over the past four years, and its fumbling efforts so far this year to put together a coherent policy.

The development of the external payments balance this year forced the Government to act to stem domestic demand. The 1980 finance plan, published last December, estimated that the payments deficit would widen from 5Kr 8bn in 1979 to just over 5Kr 12bn this year.

Sweden's engineering companies improved their earnings substantially during 1979 for the first time in six years, but the return on assets in many companies was still lower than the interest they were paying on their debts.

It was worrying that so many companies had to meet the recession with seriously weakened finances. Mr. Aake Nordlander, managing director of the Swedish Engineering Employers' Association, commented yesterday, when presenting the Association's annual survey of engineering profitability.



Mr. Thorbjörn Fälldin, right, may face an early election if heads some advisers.

In the revised finance plan, issued in April, the deficit was forecast to reach 5Kr 16.6bn, and it is now generally assumed that the final outcome will be closer to 5Kr 20bn. The growing deficit can be attributed only partly to higher oil prices.

Explaining the need for a VAT increase, Mr. Fälldin pointed out that the Organisation for Economic Co-operation and Development was forecasting a decline in total demand

of between 1 and 2 per cent in its area during the second half of the year, while Swedish domestic demand was scheduled to rise by 4.5 per cent.

The Swedish economy traditionally reacts late to international business cycles, but the lag forecast for the second half was unusually large. The prospect of facing even a mild world recession with such a heavy current account deficit clearly called for action.

Engineering sector profits rise

BY OUR STOCKHOLM CORRESPONDENT

SWEDEN'S engineering companies improved their earnings substantially during 1979 for the first time in six years, but the return on assets in many companies was still lower than the interest they were paying on their debts.

It was worrying that so many companies had to meet the recession with seriously weakened finances. Mr. Aake Nordlander, managing director of the Swedish Engineering Employers' Association, commented yesterday, when presenting the Association's annual survey of engineering profitability.

The average Swedish engineering company posted a return on equity before tax of 3.2 per cent last year, well ahead of the 3.2 per cent average recorded in 1978 but still below the levels reached in the 1972-75 period. Bigger companies with more than 500 employees performed best, averaging 8.6 per cent on equity, while the smallest averaged 2.6 per cent.

The highest earnings, 11.8 per cent, were made by the transport branch, followed by the machinery manufacturers with 11 per cent.

The earnings spread is wide. One-third of the employees in the industry worked for companies with a return of over 15 per cent, while one in seven employees worked for a company which ran at a loss in 1979.

The widespread strikes and lockouts in the spring cost Swedish industry some 5Kr 6.5bn (£557m) in lost production, the Statistical Central Bureau reported. Without the industrial dispute output would have risen by 10-12 per cent, according to the bureau.

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The Board of Directors of ENSERCH Corporation on August 7, 1980, declared a regular quarterly dividend of 43 cents per share of common stock, payable September 2, 1980, to shareholders of record August 18, 1980.

For additional information, please write to Benjamin A. Brown, Vice President, Finance, Dept. L, ENSERCH Center, Box 999, Dallas, Texas 75221.

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OVERSEAS NEWS

Changes pending as China sets Congress date

BY TONY WALKER IN PEKING

THE NATIONAL People's Congress, China's Parliament, will open on August 30, it was announced yesterday.

The "session" will see the appointment of a new Premier and the retirement of a number of veteran officials, including Deng Xiaoping, the Senior Vice-Premier.

A brief announcement by Xinhua, the Chinese news agency, said the date had been set by the Congress standing committee new meeting in Peking.

The new Premier will be Zhao Ziyang, 61, replacing Hua Guofeng who also holds the position of chairman of the Chinese Communist Party.

Mr. Zhao is at present executive Vice-Premier, in charge of the day-to-day affairs of state. He was formerly party chief in Sichuan Province.

The Congress can be expected to endorse new regulations regarding taxes to be levied on joint ventures and also a scale of personal income taxes for foreigners working in China.

Xinhua reported last night that the Congress's standing committee had been briefed by Gu Ming, Deputy Director of Legislative Affairs, on "a draft law concerning income tax on joint ventures and individual income taxes".

The standing committee was also briefed on the settings-up of special economic zones in the coastal provinces of Guangdong and Fujian. These special zones have been set up to attract foreign investment.

The standing committee's meeting was presided over by Ye Jianying, its chairman.

Our Peking correspondent adds: If a U.S. Republican



Zhao Ziyang

Administration upgraded relations with Taiwan. It would be "detrimental" to Sino-American relations, Huang Hua, China's Foreign Minister, said yesterday.

He was speaking before private talks with Mr. George Bush, the Republican Vice-Presidential nominee. Mr. Bush arrived in Peking on Wednesday for talks with Chinese officials. On the eve of his arrival, Mr. Ronald Reagan, the Republican Presidential candidate, repeated his proposal for a change in the status of U.S.-Taiwan relations.

This has deeply angered Peking. The Communist Party newspaper, the People's Daily, has strongly criticised Mr. Reagan.

To coincide with Mr. Bush's visit, Xinhua, the official Chinese newsagency, has run a number of stories quoting prominent American Democrats, criticising the Republican position.

Israel defies UN censure of united Jerusalem

BY DAVID LENNON IN TEL AVIV

JERUSALEM is the capital of a sovereign Israel and is a united city which will never again be torn apart, the Israeli Foreign Ministry defiantly declared yesterday. It rejected as "unjust and unilateral" the UN Security Council resolution which censured Israel for proclaiming all of the city as its capital.

Mr. Yitzhak Shamir, Israel's Foreign Minister, summoned Mr. Samuel Lewis, the U.S. Ambassador, from Tel Aviv to Jerusalem, to criticise America's failure to veto the resolution. There were convincing reasons, the Minister told him, for the U.S. to have opposed the resolution.

Nevertheless, there is nothing in the resolution contradicting stated U.S. policy on the status of the city. The U.S. apparently abstained, rather than voted for it, for electoral reasons.

The Israeli Foreign Ministry said that the UN decision called on those countries with embassies in Jerusalem to move them out of the city. Chile yesterday became the fourth country to announce that it will move its embassy to Tel Aviv.

Noting this, an Israeli Foreign Ministry official said that the critical UN vote was the first one which was actually

being implemented before it was taken.

During the three weeks since Israel passed the special Jerusalem Law, Venezuela, Uruguay and Ecuador have also said they would move their missions. Nine other countries, including Holland, have still to announce their position.

Meanwhile, workmen were busy putting what appeared to be the finishing touches to a new office building in Arab east Jerusalem, to which Mr. Menachem Begin, Israel's Prime Minister, is expected to move soon, as a further assertion of Israeli control over all of the city.

Alan Meekie reports from Cairo: Egypt yesterday warmly welcomed the UN Security Council resolution, which Mr. Butros Ghali, Egypt's Minister of State for Foreign Affairs, described as "positive and constructive".

President Sadat, meanwhile, has sent a message to Mr. Begin expressing the hope that the present difficulties in the deadlocked talks on autonomy for the Arab inhabitants of the West Bank and Gaza Strip may be overcome.

He has also asked local newspapers to tone down their attacks on Mr. Begin.

Malaysia 'has oil reserves of 1.8bn barrels'

By Wong Sulong in Kuala Lumpur

PETRONAS, the Malaysian oil company, has revised the country's proven oil reserves upwards from 1.4bn to 1.8bn barrels.

This is the second time this year that Malaysian oil reserves have been revised. Last April, Petronas raised the country's reserves estimate from 1bn to 1.4bn barrels.

The new oil figures were disclosed in a paper presented by a senior Petronas official at an energy conference in Kuala Lumpur yesterday.

At the present rate of production of 280,000 b/d, the reserves would be exhausted in 18 years, while Malaysia would be a net importer of oil by 1987.

S. Korean army endorses Chun

SEOUL—Gen. Chun Doo-hwan, certain to be named President of South Korea next week, was strongly endorsed for the post by Korean military leaders yesterday.

A statement by ex-President Choi Kyu-Han, who resigned last Saturday, said only "the new leader should have the support of all the nation as well as the military, and Gen. Chun has that."

Park Choong-Hoon, the acting Prime Minister, is Acting President until next week's electoral college meeting.

Chun has held total power in all but name since he led a brief military coup on December 12.

Russian nuclear submarine fire 'kills 9 crew'

By Richard C. Hanson in Tokyo

NINE CREW members of a Soviet nuclear-powered submarine are reported to have died in a fire which left the vessel crippled in international waters near the southern tip of Okinawa, Japan, early yesterday.

According to reports reaching Tokyo, the Russian submarine was of the Echo-1 class, a 5,000 tonne ship built in the early 1960s. It is believed to have been either on patrol in the area—which is used frequently for U.S. naval operations—or en route to the Indian Ocean.

There have been no signs so far of leaks of radioactivity from the submarine's nuclear reactor, and no indication of what may have caused the fire. The Russians declined an offer of assistance from Japan, and quickly evacuated many of the crew (including the dead and injured) to a Soviet ship which came to the rescue.

News of the accident first came from a British liquid natural gas (LNG) tanker, the Garl, which responded to a distress call and approached the submarine 100 miles off Cape Kiyau on the southern tip of the main Okinawa island.

Russian officers boarded the Garl and used its radio to report the fire to the Russian Embassy in Tokyo. Japanese maritime safety officials picked up word of nine crew members dead and three injured, in radio communications between the submarine and the approaching Russian ship.

About 55 members of the crew were reported to have been transferred to the rescue ship soon afterwards.

South Africa gears itself for war

BY BERNARD SIMON IN JOHANNESBURG AND SIMON HENDERSON IN LONDON

THE South African Government in recent years has been developing a "total strategy" to meet a "total onslaught"—the seemingly relentless advance of communism, unfriendly black nationalist governments, and coolness from its one-time allies in the West.

The strategy covers all elements of national policy, but it has a military heart. South Africa is determined that no potential enemy will be able to challenge its military strength.

In building up South Africa's armed forces, Pretoria has faced increasingly tight and well-policed sanctions against foreign arms suppliers. Even France, which ignored earlier United Nations resolutions, joined the Security Council's 1977 mandatory ban on arms sales, cancelling orders for four warships.

Since then, several of South Africa's clandestine arms suppliers in Europe and North America have been charged with breaking the embargo.

As a result, South Africa has given top priority to developing its own armaments industry. In less than two decades, South Africa has become the largest arms producer in the southern hemisphere, surpassing even Brazil and Australia, and the tenth-biggest this side of the Iron Curtain.

Pretoria now possesses a daunting panoply with which to counter threats to its security, whether they be riots at home,

guerrillas infiltrating Namibia and other neighbouring states, battles with African armies, or limited naval harassment from a hostile power such as the Soviet Union.

According to the authoritative Military Balance, published by the International Institute of Strategic Studies in London, South Africa can build:

- advanced aircraft, including engines, armaments and avionics;
- helicopters;
- chassis and engines for armoured vehicles, and even a version of laminated armour;
- hulls for patrol boats, although the engines and armaments have to be imported.

Much of this is done under licence agreements arranged before the United Nations embargo, but there are claims that production could continue if the licences were abrogated. The institute judged that South Africa had made significant progress in its manufacturing capability over the past 10 years.

Specific items now produced in South Africa include the French Mirage aircraft, the local version of the Italian Miachini jet training aircraft, French-designed Panhard armoured cars, Israeli-designed missile boats, a derivative of the French Crotale surface-to-air missile, air-to-air missiles, artillery pieces, infantry weapons and a wide range of ammunition.

The body at the centre of this expansion of military capability is the state-owned Armaments Development Corporation (Armcor). It is not shy about its existence—its flag flies boldly over its headquarters complex in Pretoria. But, like many aspects of South Africa's defence and economic planning, information about it is strictly controlled.

The Armcor group either manufactures, or buys from local or foreign contractors, whatever items the South Africa defence forces need.

The group was formed in 1968. In the 10 years to 1978, turnover soared from R32m (£17.3m) to R979m (£543.4m). Its allocation in this year's defence budget is about R1,200m, and it is scheduled to raise an additional R100m on domestic capital markets in 1980.

According to a senior Armcor executive, it is probably the country's fastest-growing industry.

About 23,000 people work for Armcor and its eight manufacturing subsidiaries, compared with 15,000 three years ago. The subsidiaries, which operate under such innocuous names as Lytleton Engineering Works and Pretoria Metal Pressings, own 14 factories, mostly in the Johannesburg and Cape Town areas.

These companies mainly assemble components supplied by private sector contractors.

The Armcor executive says: "We never duplicate any manufacturing facility in South Africa." Some 600 local companies are Armcor suppliers, providing goods from tents and uniforms to specialised steels and electronics.

Clues to some of South Africa's suppliers have been made public. For instance, Armcor officials and senior defence force officers have been decorated by the Taiwan Government. Several South American Governments have also publicly honoured South Africa's military leaders. The United Nations and others have claimed that companies in Italy, Israel and West Germany, among others, have sold military equipment to Pretoria.

Israel is "probably a particularly valuable link. First for its experience, because it has also been building up an indigenous arms industry to guard against the uncertainty of foreign supplies. Second, because the weapons it goes for are probably similar—both nations are having to fight insurgents. But the details of the Israeli link are a closely guarded secret in both countries."

Information about clandestine purchases to the West is hard to come by, but, according to foreign reports, Armcor bought a well-concealed 20 per cent share in the mid-1970s in Space Research Corporation, a com-



long-range artillery piece now manufactured in South Africa. The U.S. branch of the company has been heavily fined by a U.S. court. Last week, Space Research was also heavily fined in Montreal on several counts relating to contravention of the arms embargo by its Canadian section.

The local arms industry has relied heavily on adapting manufacturing licences obtained from abroad before the arms ban. Armcor's philosophy is that these licences are "recipes" for equipment suited to South Africa. "We paid for them and we have every right to continue with production," the corporation's chairman has been quoted as saying.

Along the way, South Africa has also become a substantial arms exporter, but the authorities refuse to name their customers. An amendment this year to the Armaments Development and Production Act keeps all exports of weapons and their components a closely guarded secret. The Guerrillas of Polisario, fighting for the independence of the former Spanish Sahara, have captured armoured cars with Afrikaans writing on them from the Moroccan forces.

"We will have to meet the military threat all the time," one Armcor executive said. The implication is that South Africa's arms industry is going to keep growing.

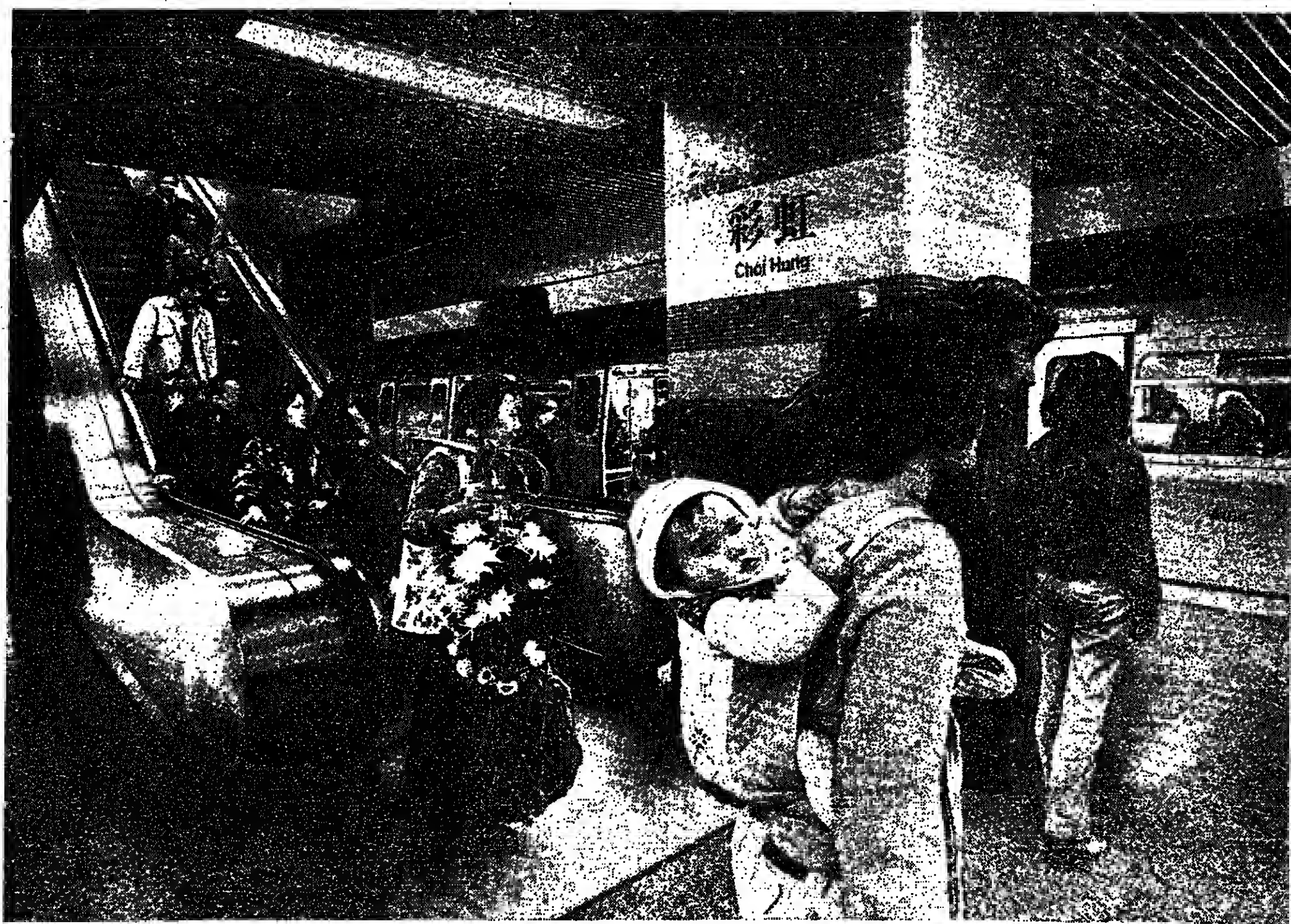
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AMERICAN NEWS

Railway deregulation bill founders in Congress

BY IAN HARGREAVES IN NEW YORK

THE CARTER Administration's efforts to lift decades of limitations on the pricing and flexibility of U.S. railways appear to have collapsed.

Backers of the so-called rail deregulation legislation in the House of Representatives announced that they were abandoning their bill because of the insistence of a Republican-led group of Congressmen on an amendment which would, according to the deregulators, have destroyed the spirit of the bill.

A spokesman for Congressman James Florio, a Democrat from New Jersey and floor manager for the bill, said yesterday that he was "extremely pessimistic" about any revival of the bill in the present Congress.

Government and industry officials, however, expressed the hope that a compromise could still be reached in time to relaunch a bill next month.

If the move to change the law, which had already been passed in the Senate, has been defeated it is the first failure of President Carter's sweeping programme to restore open market pressures to sectors of U.S. business long shackled by federal controls of one kind or another.

The spirit of deregulation has already had dramatic consequences for the airline and road haulage industries and promises to lift many of the restrictions in the banking industry.

The deregulation Bill for the railways came unstuck on an amendment which would have had the effect of keeping Government price control for the railways' main cargo, coal.

Supporters of the amendment argued that many power companies were wholly dependent upon rail transport and that if the railway companies were

given a chance to hoist rates, consumers would be forced to pay much more for their electricity.

The amendment would have required federal intervention on prices where a railway's sales revenue from hauling a particular commodity exceeded costs associated with the cargo by more than 1.6 to 1. The Bill proposed a formula of 2:1, which was regarded by the railways as an acceptable level of control on their pricing freedom, especially on coal.

The deregulators claim that the railway industry can only be revitalised within the private sector if profit margins are increased, in order to provide more funds for investment. The investment is needed both to improve services and to reverse the industry's poor safety record, which is itself mainly a result of poor track maintenance.

Senators press tax cut plan

By Our Washington Correspondent

THE SENATE Finance Committee, Bunting Administration disapproval and inaction in the House of Representatives, is forging ahead with its version of a 1981 tax cut—\$22bn (£9.3bn) in reductions for individuals, faster investment write-offs for business, and a \$2.5bn capital gains tax cut, voted yesterday. The reduction in taxes could total about \$37bn.

Democrats and Republicans on the committee are pushing ahead fast to try to create a "handwave" for tax cuts that might jolt the House and possibly the Administration into following suit.

Senator Russell Long, the committee's veteran Democratic chairman, has in effect set today as a deadline for the committee to agree on the main elements of a tax cut package. His particular reason for haste is that he plans to leave Washington to campaign for re-election in Louisiana.

So far, other branches of the Government seem unmoved by the Senate committee's tactics.

The Administration's "economic renewal" programme, due to be announced by the President in the next 10 days will contain modest tax-cut plans for 1981.

U.S. developing fighter 'undetectable on radar'

BY OUR WASHINGTON CORRESPONDENT

THE U.S. has developed and secretly tested in Nevada over the past two years a fighter aircraft that is designed to be virtually invisible to Soviet radar, according to an authoritative report yesterday in the Armed Forces Journal, a private publication.

The Defence Department did not comment on the report which said the aircraft was being built by Lockheed Corporation and was known in military circles as "the stealthy aircraft." Apparently, it was designed to reflect few radar waves and coated with special absorbent paint, the aircraft is designed to penetrate Soviet air defences undetected.

Several prototypes have been built, but two are reported to have crashed, possibly because of the aircraft's peculiar shape. Nonetheless, if flaws in the new technology are ironed out, defence planners believe it could be adapted to the design of a new strategic bomber.

Some Congressional leaders have already been briefed on the project, and it is quite possible that the Carter Administration is not unhappy to have news of it leak out during the Presidential campaign. Mr. Ronald Reagan, the Republican nominee, has sharply criticised Mr. Carter for cancelling in 1977 plans for the B-1 bomber to replace the ageing B-52.

Nuclear reactor licensed

BY OUR WASHINGTON CORRESPONDENT

THE NUCLEAR Regulatory Commission has granted a Virginia power company an operating licence to start a new reactor, the first such permit given in the U.S. since the Three Mile Island accident in Pennsylvania in March 1979.

The Commission was yesterday considering granting a second operating licence for a reactor owned by the Tennessee Valley Authority. Like many authorities around the country, the TVA's power generation is

behind schedule partly because of the NRC's moratorium on new licences since the accident. Reactor safety was the focus of the President's Kemeny Commission, which issued its recommendations last year. But the emphasis in the political debate about nuclear power has this year switched back to the long-term problem of nuclear waste disposal, while both President Carter and Mr. Ronald Reagan, who are contesting the election, are agreed on the need for nuclear-generated energy.

Billy Carter 'did not try to lobby'

BY DAVID BUCHAN IN WASHINGTON

MR. BILLY CARTER yesterday took the stand before a special Senate committee to assert that he had never tried to influence his brother, the President, or any U.S. official, on behalf of the Libyans from whom he has borrowed money.

Mr. Carter told the nine senators of the panel that from his first trip to Libya in 1978, he made it clear that he was "not a vehicle through which Libya could affect U.S. policy."

"I see no allegation that anyone committed a crime and no indication that the Department of Justice treated me with favour," the President's younger brother said. The issue had arisen as to whether Mr. Billy Carter had been tipped off by Administration officials to register as a Libyan agent last

month, thus avoiding criminal prosecution under laws that bar clandestine lobbying on behalf of foreign regimes.

Mr. Carter, in a three-piece suit with cowboy boots, was the star witness of this week's hearings, held in the marble Senate caucus room once the scene of the Watergate investigations in 1974. But if the crowd of reporters and spectators yesterday expected any immediate revelations, they were disappointed.

But after Mr. Carter the younger read a 27-page statement asserting his innocence, the Senate committee went into private session to hear new evidence.

Mr. Carter acknowledged he had brought most of his troubles upon himself. "But I refuse to

conform to an image that a lot of people thought a President's brother should adopt," he said. The hearings would show, he went on, that "Billy Carter is not a buffoon, a boob or a whacko. I am a common citizen with uncommon family problems."

The President's brother has been much criticised for taking \$220,000 from Libya. But he said yesterday that much of his income from speaking engagements, commercial endorsements, and the like had dried up because of his unpopular links with Libya.

"I truly believe that the Libyan people with whom I deal felt personally responsible for the fact that I had lost my means of livelihood," he said.

Argentina signs Brazil nuclear deal

BRASILIA—Argentina has agreed to supply 240 tons of reactor grade uranium fuel to Brazil as part of a supplemental nuclear accord intended to signal an end to the traditional rivalries between South America's two most powerful countries.

The accord was signed late Wednesday by nuclear energy officials of both nations, coinciding with Argentine President Jorge Videla's visit of friendship to Argentina's Northern, Portuguese-speaking neighbour.

Sr. Videla and President Joao Figueiredo presided at formal ceremonies as the military-backed Government of both nations said they would share information and technological resources in the development of nuclear energy. The agreements are in addition to a broad-based nuclear accord signed by the countries in May, when Sr. Figueiredo made a visit to Buenos Aires.

The Argentine shipment of nuclear material is scheduled to begin in 1981, foreign ministry officials said. Brazil would repay what is being described as a loan two years later by equal shipments of nuclear material to Argentina, officials said.

Argentina is more advanced than Brazil in its nuclear programme, with a 370,000 kW reactor supplying electricity since 1975. Brazil has eight nuclear power plants either under construction or planned, but none have been put on line.

Robert Lindley adds from Buenos Aires: Vice Admiral Carlos Madero, the president of Argentina's National Atomic Energy Commission, said that one of the agreements signed by the two countries "foresees the possibility that Brazil could provide some heavy component for Atucha Two, Argentina's third nuclear power plant, about to go into production. A component which could not be manufactured in Argentina.

As for the 240 tons of uranium, an aide said that it would be natural uranium and would be lent to Brazil and that Brazil would return it with interest, which could either be in uranium or in foreign exchange.

Dacca-Paris energy accord

DACCA—Bangladesh will sign a nuclear agreement with France during President Ziaur Rahman's brief visit to Paris on August 29 for talks with French President Giscard d'Estaing. Foreign Minister Shamsul Huq said yesterday the agreement will be "an umbrella agreement under which France will provide assistance for its nuclear energy development."

Bangladesh has plans to set up a 250 megawatt nuclear power plant at Rooppur in northern Bangladesh. Mr. Huq said since Bangladesh had signed the non-proliferation treaty and was publicly committed to peaceful use of nuclear energy, there was no reason to fear that Bangladesh would produce nuclear weapons.

Malaysia water project
The Malaysian Government plans to spend M\$1.4bn (£274m) on water supply projects between 1981 and 1985 as part of the Fourth Malaysia Plan. It is more than double the amount spent during the five-year Third Malaysia Plan which is now drawing to an end, agencies report from Kuala Lumpur.

WORLD TRADE NEWS

Japan bid to reverse U.S. truck duty

BY RICHARD C. HANSON IN TOKYO

THE JAPANESE motor industry, angered by the imposition of a 25 per cent tariff on imports to the U.S. of small truck cabs and chassis, said yesterday it would take legal steps to overturn the decision. The government, meanwhile, is moving to resolve the dispute under the provisions of the General Agreement on Tariffs and Trade (GATT).

Toyota and Nissan issued separate statements saying they, as U.S. subsidiaries, would contest the reclassification of the light truck cab/chassis imports, which until this week were allowed to enter the U.S. under a 4 per cent tariff applicable to motor parts. The Japanese have for several years built up their sales of light trucks in the U.S. under an understanding with U.S. authorities dating back to 1973

which allowed them to import unassembled trucks as parts. The 25 per cent tariff slapped on light trucks this week by the U.S. Treasury dates back to the early 1960s when it was used to retaliate against European (mostly German) imports in a trade dispute.

The Japanese makers view the higher tariff rate as illegal, and are taking steps under U.S. customs law to complain, and then file suit in Customs court. The Japanese Government believes the U.S. decision runs contrary to the spirit of the GATT, and, as such, will enter into talks with the U.S. under the rules set by the GATT.

Japanese officials have sought over the past few months to persuade the U.S. to either leave the small truck tariff as it was, or, if there must be an increase,

to keep the tariff to a more moderate level. The U.S. Government, under strong political pressure because of the recession in its own motor industry, refused, despite concessions won from the Japanese earlier this year on opening up their own market to car imports.

Toyota said that it would have to consider layoffs or a possible closure, at its California subsidiary, which manufactures small truck backs for final assembly in the U.S. Both Toyota and Nissan are threatened serious damage to the dominant position they hold in the small truck market in the U.S.

David Buchanan adds from Washington: Japan has in recent months shipped small trucks into the U.S. at a record annual rate of 400,000 in an

apparent bid to beat the now-effective higher U.S. tariffs, according to a senior trade official here.

Last year, Japan exported 280,000 light trucks to the U.S. worth \$1.5bn (£633m). The trucks are shipped in two parts. But, because the U.S. motor industry has complained that bolting the two parts—a cab chassis and a flat bed—are the work of a matter of minutes, the U.S. Administration has reclassified the imports as complete trucks for which the tariff is 25 per cent.

Mr. Robert Hormats, the deputy U.S. trade negotiator, said the U.S. might negotiate a reduction in the new tariff, but that would require Japanese companies to voluntarily restrict their exports and open up their own market to U.S. products.

Barter plan in Swiss Rapier deal

BY JOHN WICKS IN ZURICH

COMPENSATION orders for Swiss industry are foreseen in connection with the planned sale to the country's army of British "Rapier" anti-aircraft missiles. The "Rapier" contract is to come before the Bernese Parliament later this year and supplies could start early in 1981.

The manufacturer of the "Rapier" system, British Aerospace, has expressed its readiness to take part in a purchase programme which would partially offset the British deliveries. The British Ministry of Defence is supporting this plan and is to promote business with Swiss companies.

The Federal aircraft establishment at Emmen would place orders for Swiss production under licence of "Rapier" parts, while British Aerospace would contract some work out directly to Swiss suppliers. At the same time, British Aerospace and the British Ministry of Defence would place additional

orders with Swiss industry outside the "Rapier" contract.

Total compensation value could equal about 50 per cent of that of British Aerospace deliveries, 30 per cent to be accounted for by direct participation in the contract and 20 per cent by outside order. The latter would include Swiss metals, machinery, apparatus, instruments and watches, as well as civil engineering services.

Foreigners to set up Irish plants

By Stewart Dally in Dublin

AT WHAT is psychologically a good moment, Mr. Desmond O'Malley, Ireland's Minister for Industry, Commerce and Tourism, has announced that five overseas companies are to set up manufacturing plants in Cork and Kerry which could produce almost 1,000 jobs.

In conjunction with Ireland's Industrial Development Authority (IDA), the companies should start such projects in the next few months.

Apple Computers of California is to manufacture personal computers and could employ 724 people. Schaeff at West Germany plans to create 110 jobs in Killybegs, the first Irish factory to manufacture excavators and shovel loaders.

Foret, of France, plans to employ 90 people and manufacture a range of document protection covers. A small new industry, Nova-Tech is to set up an electronics sub-assembly plant at Droichead in Cork. This could provide 25 new jobs.

The Minister's announcement has been made at a time when there is growing concern over rising unemployment in Ireland. Most recent statistics show that more than 100,000 people are unemployed—nearly 10 per cent. In late 1978 the Government managed to push the jobless total down to 8 per cent.

The IDA is the main agency for attracting overseas companies into Ireland. It offers a generous package of incentives, including grants of assistance. These are added attractions that companies entering before next January do not have to pay tax on exports. From 1981 there will be a standard rate of 10 per cent corporation tax.

The IDA is not so much concerned with the actual amount of foreign investment entering the country (although this is always welcome to help out the balance of payments) but with the number of jobs created.

In the boom years of 1976 and 1978, the IDA managed to promote 30,000 new jobs. This is extremely high considering the total workforces in Ireland is just 1.1m. Meanwhile, Tungsram, the Hungarian electrical manufacturer, has independently announced it is to build a light bulbs and fitting factory in County Cork in a 54m joint venture with its UK agents, J. J. Bustin.

This will be the first Irish European investment in Ireland. Production should start next August and, eventually, 160 new jobs will be created.

Iran establishes import centres

BY OUR FOREIGN STAFF

IRAN IS pushing ahead with the establishment this week of import centres for clothing and wood and paper as part of the move to nationalise foreign trade.

An import centre for steel has already been established and a \$7.5m contract signed with Sweden. Japanese companies in Iran, who supplied 650,000 tons of steel last year, now say that they have ceased exports because of sanctions. This has contributed to the current steel shortage in Iran which has led to high prices on the free market.

The Government plans to nationalise all Iran's foreign trade, beginning with key sectors such as wood and paper where there is a severe shortage.

Answering criticism over failure to act earlier Mr. Reza Sadr, the Commerce Minister, said the delay was due to a lack of qualified personnel and the danger that precipitate action would lead to a collapse of the existing domestic market.

Traditional merchants in the bazaar have bitterly attacked the takeover but the scheme still falls a long way short of complete trade nationalisation. It only covers importing and a small part of the distribution network.

The Government's aim is to reduce the role of the middleman in importing and control prices. The authorities also hope that state officials will be able to gain experience in importing, opening the way for a greater measure of state control in future. Imports now account for 70 per cent of all goods in circulation in Iran.

showed a surplus of £145.4m compared with a deficit of £321.2m last year.

The second quarter saw a strengthening of the trend which developed in the first three months, when Britain recorded a small surplus of £2.5m compared with a deficit of £147.2m in the first 1979 quarter.

Britain exported £78.8m worth of dairy produce and eggs to the Netherlands, more than twice as much as Dutch exports of £28.5m.

UK exports to Holland rise 41%

BY CHARLES BATCHELOR IN AMSTERDAM

BRITAIN achieved a comfortable surplus on its visible trade with the Netherlands in the first half of 1980 compared with a large deficit in the same period of last year. It ran large surpluses particularly in the dairy produce, chemicals and oil and oil product sectors.

British exports rose 41 per cent in the first six months of the year to £1,939m job while Dutch exports were only 6 per cent higher at £1,758m. According to trade figures released by the British Embassy in the Hague, British trade

Taking the foodstuffs sector as a whole, excluding dairy products, the Netherlands continued to sell substantially more to Britain. Dutch first-half exports were £274.6m compared with British exports of £122.2m.

Britain is regularly in surplus in the chemical and oil sectors, a reversal of the position of a year or so ago. Chemical exports were £340.2m while Dutch exports were £286m. British oil and oil product exports were £566.6m compared with imports of £407.6m.

In the early 1970s trade was closely balanced, but last year there was a £140m surplus in Spain's favour, and on present indications this could rise to over £150m by the end of the year.

Indeed, there is only one major area where Britain has a clear balance—in the sale of chemical products. The dynamic growth of Spanish exports has been largely stimulated by slack domestic demand, and frequently goods are sold at cost.

Anglo-Spanish trade expands

BY ROBERT GRAHAM IN MADRID

SPANISH EXPORTS to the UK rose 31 per cent in the first six months of the year to £487m. At the same time, sales of British goods to Spain increased 27 per cent to £409m, according to Department of Trade and Industry statistics released here.

This is a rapid expansion of trade between the two countries, especially in the past three years. The principal growth has come from exports of Spanish goods to the UK.

The largest category of goods exported by Spain to the UK is transport equipment and machinery. In the latest half-year these sales were up 52 per cent to £143m on the same period in 1979. This is in part accounted for by the sale of Ford Escorts.

On the UK side, the main category continues to be machinery and transport equipment, including parts and components for the expanding Spanish motor industry.

There is general agreement that no single currency should have the privileged position the dollar has had in the past 35 years. But there is no consensus about whether the future basis for an international monetary system should be a basket of currencies, or a basket of commodities. There has even been a suggestion that there should be a return to the gold standard—though many advocates of change oppose this, not least because of the advantages it would give the Soviet Union and South Africa.

A second area of disaffection likely to surface in New York is over control of the Fund. The Arusha conference for instance, saw Third World delegates calling for a more "democratically

Canute James, in Kingston and David Tonge in London, report on next week's United Nations special economic session in New York

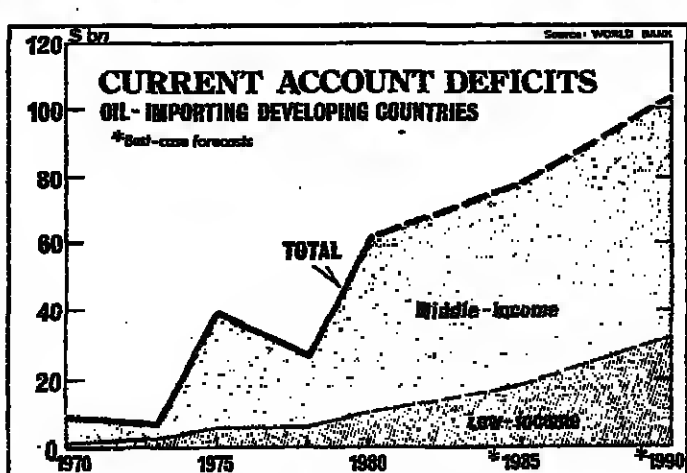
Developing countries prepare to vent discontent with IMF

SLOWLY SPREADING discontent in many developing countries with the International Monetary Fund and the international monetary system in general will come to the fore next week, when the United Nations special session on economic issues convenes in New York.

Third World delegates are expected to advocate replacing the Fund with another monetary authority, or reforming it to meet what the poorer countries see as their particular problems.

For the past five years Third World countries have been asking for a "new international economic order." One aspect of this would be ensuring for them what they regard as fair and stabilised prices for their exports, with these prices indexed to keep pace with the prices of the goods they import.

A second aspect is reform of the system of international finance. In this area, the problems of dealing with long-term payments imbalances and recycling the capital surpluses of members of the Organisation of Petroleum Exporting Countries to the developing world has brought the International Monetary Fund into the limelight.



Most Western governments believe the Fund's role should be enhanced, but many Third World countries agree with Mr. Rimmer de Vries, senior vice-president of Morgan Guaranty Trust: "Now the time may have come to reform the IMF itself."

In many developing countries, the malaises are similar—increased payments for imported energy, and static or marginally higher prices for their own exports. The results have been current-account deficits and a growing inability to import such basics as food and medicine, as well as raw

material for small, labour-intensive industries. The fund's prescriptions should ideally be the answer to these problems: tight control of foreign expenditure and management of internal demand leading to austerity in fiscal management, supported by other mechanisms like devaluations.

It is the apparent failure of the Fund's policies to solve the economic problems of many Third World countries which will provide delegates with the basis of their arguments for reform. Developing countries will argue that many economies, debt-ridden, lacking foreign

exchange and declining rather than growing, are too weak to withstand the pressures of the Fund's economic policies.

The case of Jamaica is likely to be cited. A three-year facility of \$75m was suspended by the Fund in December 1977, when the island's economy failed to meet the domestic assets criteria set by the Fund. A renegotiated \$400m three-year facility ran into trouble in December last year, when the island's foreign exchange debts just under \$500m exceeded by about \$1m the limit the Fund had set.

The island's Government has defended itself against charges of financial mismanagement by saying the Fund's conditions could not be met, at least in the short time it was given. The extent to which the Government and the Fund disagreed was dramatically underlined in March when the Fund's suggestions for more budget cutbacks totalling \$550m (£118m) were rejected. The Government said 11,000 Government workers would have to be fired, which it claimed would cause social and economic chaos.

While the Fund says Jamaica had been lent generous sums, those advocating changes to the Fund have said the unsuitability of its approach to Third World problems is reflected in the Jamaica economy.

Unemployment has gone up from 25 per cent to 31.5 per cent, the external debt has moved from \$308m in 1973 to \$1.3bn today, the debt servicing burden this year is \$254m, 54 per cent of foreign earnings, and the economy has declined by 16 per cent in the past seven years.

Representatives of some Third World countries are already speaking of indications of changes in the Fund's attitude to the poorer nations, and of suggestions that it may accept that standard and inflexible criteria for economic recovery which might work in stronger West European economies cannot be applied wholesale to less-developed countries.

They point, for example, to recent agreements between the Fund and Guyana and Tanzania, after the latter made fundamental objections to the Fund's conditions. Although the details of both agreements have been sketchy, representative of other Third World governments say the Fund has asked less austerity of these two countries than it did of Jamaica.

In Guyana's case, the Fund is not only working closely with its sister organisation the World Bank, but is also aiming to keep the country growing by putting new emphasis on "the supply side" of the economy—that is

FLOW OF FUNDS FROM IMF TO OIL IMPORTING DEVELOPING COUNTRIES

(In millions of Special Drawing Rights)

	1978	1979	Jan-June 1980
Total flow	2,000.5	2,746.9	2,861.1
Of which: Drawings of IMF facilities	1,029.2	1,390.4	1,500
Allocations of SDRs	—	1,510.1	1,440*
Soft loans from Trust Fund	688.1	526.6	580
Total repayments to IMF	1,730.0	1,236.4	800
Net flow to oil-importing developing countries	270.5	2,530.5	3,061*

* IMF estimates.

1 SDR equals 11.31.

Source: IMF

on stimulating production and investment.

It has also greatly expanded its lending. It no longer restricts loans to about four times a country's quota with the Fund, and has made some major advances this year from the Supplementary Financing Facility, the so-called Witterveen Fund, which helps countries with serious payments imbalances.

These changes have not, however, appeased many Third World countries which regard them as inadequate and, in some cases, cosmetic.

At a recent conference in Arusha, Tanzania, Third World countries called for a special United Nations conference on international money and finance.

There is general agreement that no single currency should have the privileged position the dollar has had in the past 35 years. But there is no consensus about whether the future basis for an international monetary system should be a basket of currencies, or a basket of commodities. There has even been a suggestion that there should be a return to the gold standard—though many advocates of change oppose this, not least because of the advantages it would give the Soviet Union and South Africa.

A second area of disaffection likely to surface in New York is over control of the Fund. The Arusha conference for instance, saw Third World delegates calling for a more "democratically

controlled" monetary authority, with the industrialised countries in general and the United States in particular losing the dominant positions they have in the Fund. But even among Third World countries, there is no consensus as to the precise form, nature and role of this new monetary authority.

The industrialised countries are likely to respond to the Third World's request for monetary reform by suggesting that this should be discussed within the Fund and nowhere else.

This is hardly likely to appease the Third World, and as one African Finance Minister said: "The industrialised countries already know how we feel and answer. What we would like now is for them to admit that the system is unfair to us and to start to do something about it." The alternative, the argument runs, is that Third World economies could become even more bartered.

The African Minister says: "What we are asking for is not just for the benefit of the children and grandchildren of the developed world. Ours is not a plea to lower the standards of living in Europe or North America. It is a request that we now make the first moves to improve the quality of life of the poorest people of the world."

مكتبة المجلد

New post for former NEB executive

By John Elliott, Industrial Editor

MR. RICHARD MORRIS, who resigned from the deputy chairmanship of the National Enterprise Board during a row with the Government last November, has been appointed chairman and chief executive of Brown and Root UK, the American-owned engineering concern.

He has also become a part-time industrial adviser to Barclays Bank, and retains a non-executive directorship of British Nuclear Fuels.

This means that the two full-time Board members of the NEB, who suddenly lost their jobs when the Board resigned last November over the Government's handling of Rolls-Royce, have re-established themselves in the business world.

Sir Leslie Murphy, the 64-year-old former chairman, has been appointed a non-executive



Mr. Richard Morris

director of both Schroders merchant bank and Simon Engineering. He has also become part-time chairman of Petroleum Economics, a firm of oil industry consultants.

Mr. Morris, 54, joined the NEB as full-time deputy chairman in February, 1978 after 27 years with Courtaulds, where he was group technical director.

But he did not return to the company when he left the NEB, where his jobs had included chairmanship of INMOS, the controversial microchip venture.

Mr. Morris joined Brown and Root as deputy chairman in April. His appointment as chairman and managing director in succession to Mr. Bill Stallworth was announced yesterday. His responsibilities cover the company's European and African interests. It is understood his salary is slightly in excess of the amount he earned at the NEB.

Lloyds boost for home loans

BY TIM DICKSON

LLOYDS BANK is to reduce its minimum mortgage loan from £15,000 to £10,000 on September 1.

In the most direct attack on traditional building society territory by a clearing bank, Lloyds said yesterday it would also lower its minimum house valuation figure from £20,000 to £15,000 and offer a cheaper rate of interest on loans between £10,000 and £20,000. This will be 2 1/2 per cent over base rate (a current rate of 18 1/2 per cent), compared with 3 per cent over base for larger advances.

The Lloyds announcement follows a separate move in a similar direction earlier this month by Williams and Glyn's Bank, a member of the Royal Bank of Scotland Group. Williams and Glyn's says it will provide loans of as little as

£2,000 up to £15,000 for council house tenants wishing to buy their own properties.

Although Lloyds was the first bank to move formally into house mortgages, the clearer now have a toehold in this market.

Until yesterday, the banks were largely identified with financing higher priced houses. The minimum loan at Barclays is still £15,000 while Midland and National Westminster are unlikely to accept applications for less than £20,000.

"The new lower figures are intended to appeal to younger and first-time house buyers," Mr. Fred Crawley, Lloyds' chief general manager of Lloyds Bank said. "We want to expand our services to home-makers and believe that the lower interest rates and our readiness to innovate will be welcomed."

Mr. Norman Griggs, the Building Societies Association secretary general, was unperturbed by the news. "I would not have thought that an interest rate of 18 1/2 per cent was particularly competitive."

"Furthermore, the supply of and demand for mortgages seems to be nearly in balance so people should be able to get what they want at a cheaper price from the building societies," he said.

"We are probably more worried by the banks' recent efforts to attract depositors through new savings schemes."

Lloyds has lent about £87m to 1,250 housebuyers at an average of £32,000 a time since introducing mortgages at the beginning of last year. The bank has now committed a total of £58m for this purpose. Loans are normally considered for up to 80 per cent of

a professional valuation and up to 2 1/2 times the borrower's annual income. Repayment can be made either on a straight repayment or through an endowment policy with interest calculated on day-to-day basis.

Williams and Glyn's yesterday became the latest clearing bank to join in the battle for savings with two schemes to be launched this autumn.

The first, called the High Yield Deposit Scheme, will offer depositors prepared to lock away sums between £5,000 and £25,000 for three months a rate of interest 1 1/2 per cent above the Bank's normal seven-day deposit rate.

The second, entitled Term Deposit Accounts, will give savers with £5,000 or more an interest rate which reflects the longer than normal term and the higher amounts involved.

BSC 'coke mountain' undercutting Coal Board

By Maurice Samuelson

THE British Steel Corporation is selling some of its large stock of surplus coke at prices below those of the National Coal Board.

In South Wales this week two train-loads of coke left Port Talbot steelworks for the Avonmouth smelting-works of RTZ, which normally receives its coke from the Coal Board's Nantgarw plant near Cardiff.

The Coal Board and miners' leaders are concerned about the BSC's sales attempts. The board says that the surplus accumulated in the steel strike, should be sold abroad. Mr. Emlyn Williams, South Wales president of the National Union of Mineworkers, said yesterday it was "disgraceful" that one "nationalised industry should undermine another. Rail unions would be asked to intervene."

BSC said that after the strike and production cuts the corporation had no alternative to disposal. At Port Talbot the "coke mountain" is believed to be of about 500,000 tonnes, worth about £30m.

The corporation refused to comment on reports that it was undercutting the NCB's coke price, by as much as £14 a tonne. The Coal Board, however, thought that this figure was exaggerated.

The two train-loads of coke for the RTZ smelter were the first part of a month's trial order.

A contract by BSC to take coke from the Coal Board's Nantgarw coke plant still has 18 months to run. This represents about a third of the works' reduced output. Its loss could cause closure of a pit employing 700 men.

Limit Portuguese, urges wool group

BY RHYS DAVID

A PROLONGED transitional period before Portugal is allowed tariff free access to the UK for its textile and clothing exports, following its entry into the EEC, is urged by the Wool Textile Action Committee.

A period of five years at least, and possibly 10, is suggested. The committee, which represents industry trade unions and local authorities in West Yorkshire, claims that Portugal with its rapidly expanding textile and clothing industry, is a major threat to the UK.

Britain already imports more than half Portugal's total clothing and textile exports to the EEC. Manufacturers in Yorkshire are particularly worried about the growth in Portuguese exports of suits and trousers—products which directly affect demand from the wool textile industry's customers.

Trouser imports from Portugal rose from 1m in 1977 to 2.1m last year, capturing 19 per cent of the market. Suit imports were up from 32,000 in 1977 to 245,000 last year.

In textiles and clothing, Portugal has become Britain's second biggest low-cost supplier, in spite of the existence of informal agreements limiting exports, and she enjoys a substantial surplus in her favour. Total Portuguese exports to Britain were £118m last year, while British exports to Portugal were £18m.

Exports from Britain face high tariff barriers to enter the Portuguese market and these are unlikely to be fully dismantled for some time after Portugal joins the EEC.

An attack on the barriers which the UK textile industry faces around the world, was made yesterday by Mr. Ian MacArthur, director of the British Textile Confederation, at a meeting in Roxburghshire.

Brazil, he said, had tariffs up to 205 per cent and those in South Korea reached 80 per cent. "There are high barriers in the developed world also; the tariff on sweaters in the U.S., for example, ranges from more than double to four times the tariff applied by us as a member of the EEC."

Grade-RCA Records merger plan dropped

BY REG VAUGHAN

PLANS to merge Lord Grade's Associated Communications Corporation's loss-making Pye Records division with RCA Records, UK to form a new home entertainment venture has fallen through.

However, Associated Communications is to go ahead in this area, and plans to expand swiftly in the video field.

In a joint statement yesterday RCA, part of the large U.S. electrical products group, and Precision Records and Tapes, a subsidiary of Lord Grade's ATV Television and Classic Cinema company, announced that they had "amicably terminated negotiations to form a joint venture in the UK."

The companies, which said they were in talks last May,

were "unable to reach a satisfactory conclusion because of the status of agreements with third parties."

Lord Grade said that Precision, which showed a loss of £43,000 in 1978-79, had a lot of distribution and manufacturing agreements with major record companies which were conditional on no change of ownership.

It was planned that the new company, to be owned 51 per cent by RCA and 49 per cent by Associated Communications, would manufacture, distribute and promote audio and video records and tapes in Britain. Associated Communications was to have made available to the venture its catalogues of feature films.

Report on Lloyd's slanted, says broker

BY JOHN MOORE

PARTS OF a major report into self-regulation in the Lloyd's market are "slanted too much in favour of the larger broking battalions," says a senior Lloyd's insurance broker.

Mr. Nigel Kemble-Clarkson, managing director of Gault Armstrong and Kemble, one of the brokers involved in planning a possible strike insurance scheme for CBI members, made his criticisms public in the insurance trade journal Post Magazine, published yesterday.

He claims substantial support for his argument. It is suggested that 20 to 30 Lloyd's brokers share his criticisms.

Sir Henry Fisher and a working party recommended the creation of a 25-strong council, with wider statutory, regulatory

and disciplinary powers than the existing 16-man ruling committee of Lloyd's.

Mr. Kemble-Clarkson says it is important that "the brokers' representatives on the council should, by some form of classification, be elected under categories which would ensure that the smaller and/or new brokers would have voting presence."

"Otherwise, by numerical voting power alone, representation in favour of the larger organisations would be inevitable."

He criticises the Fisher report's proposal that brokers should only be admitted to Lloyd's if "an ultimate guarantee is given by the ultimate holding company."

Crude oil prices 'rose by up to 200% in 18 months'

BY SUE CAMERON

CRUDE OIL prices rose by between 150 per cent and 200 per cent from the end of 1978 to the middle of this year, according to a Shell briefing paper released yesterday.

The paper, entitled The Changing World of Oil Supply, says pressure on crude supplies has been maintained in spite of a substantial increase in crude production by members of the Organisation of Petroleum Exporting Countries.

"Because of the underlying uncertainties, there have been and there still remain strong pressures for buyers—whether international oil companies,

governments, traders or refiners—to purchase any oil that is available. This has maintained pressure on crude supply and has enabled the oil producers to increase their prices almost at will."

The paper says that as a result, the oil producing countries can make as much money as before the Iranian revolution—but on a reduced proportion of their earlier oil production.

In spite of last year's oil crisis, OPEC production increased by an average of more than 1m barrels a day compared with 1978.

Stockbroker cleared of misconduct

BY STEWART DALBY IN DUBLIN

BUTLER and Briscoe, a principal Government stockbroker, has been cleared of misconduct by a Stock Exchange committee.

"The committee was set up to investigate allegations by Mr. James Cummins, a former employee of the broker, that the company had been acting illegally."

Cummins, who now lives in Australia, made complaints against the company in a letter.

Further letters have been exchanged with the Dublin newspaper, the Sunday World. The company which also acts as private stockbroker has sought to prevent publication of an article based on information from Mr. Cummins about investigation of Butler and Briscoe by the Stock Exchange. The paper has agreed to produce the article in court today.

The Stock Exchange committee said that after a comprehensive review of the evidence gained from interviews and documents, it could find no basis for taking disciplinary action against the company or any of the partners.

Mr. Cummins was an authorised clerk with Butler and Briscoe between 1971 and 1978. The allegations were made in April 1979. Mr. Cummins left the company in 1979 and joined Xlaxa, a new stockbroking firm in Dublin.

Inland Revenue reviews direct tax impact on OECD incomes

BY TIM DICKSON

TAXPAYERS in the Netherlands and Sweden shoulder a bigger tax burden than taxpayers in other major countries. UK taxpayers are on about par with those in Germany but those in Japan, Italy and France, in particular, escape more lightly.

These are among conclusions in a new Inland Revenue review of the impact of direct tax on employment incomes in eight OECD countries.

The review takes into account social security contributions, which are, in effect, a direct earnings-related tax in a different guise. But it ignores indirect and company taxes and is therefore not a complete guide to relative rates of international taxation.

As bases of comparison the Inland Revenue has used national incomes in sterling translated directly into foreign currencies; the more helpful multiples of wages earned by the Average Production Worker; and finally, an amount translated into the equivalent purchasing power. (The last two are shown in the table.)

The UK average production worker's wage used in the Revenue's calculations is £5,800 compared (in sterling terms) with £4,990 in Italy at the lower end of the scale and £8,320 in West Germany at the higher end.

The snags in making these comparisons are the different positions of the average production worker in national income distributions and the probable distortions of the multiples—people on the same multiples,

Effective rates of income tax and social security contributions (married man without children)									
Multiples of APW* Earnings	France	Germany	Italy	Japan	Netherlands	Sweden	U.S.	UK	
1	15	28	20	17	34	33	19	26	
2	18	28	28	23	39	53	28	29	
4	25	38	34	34	51	69	41	37	
2 (marginal)	29	39	38	34	50	80	41	38	
Purchasing power equivalents									
£6,000	15	26	20	n.a.	31	n.a.	n.a.	26	
£6,000 (marginal)	19	34	31	n.a.	46	n.a.	n.a.	37	

*Average Production Worker. n.a.=not available.

for instance, are unlikely to share the same characteristics of the average production worker.

None the less, this is certainly a more useful approach than the simple translation of sterling amounts.

As the table shows, the average production worker in the UK, who is married and without children, pays an effective rate of tax of 26 per cent. This compares favourably with the Netherlands, Sweden and Germany, though an average production worker in the U.S., Japan, Italy, Germany and France is left with proportionately more after tax income.

Someone producing four times an average production worker's income in the UK will also be better off than the equivalent American.

The length of the basic-rate band accounts for the fact that at 1 1/2 to 2 times average earnings the UK does not come off badly in international comparisons. At two times average pro-

duction workers wage, the UK marginal rate of tax and social security contributions for a married person without children is lower than any other country except France.

Married Frenchmen, meanwhile, may be treated generously but those unmarried do not fare quite so well. Their effective rates of tax are still lower than in most other countries but not by so much, while someone who is not the marrying kind would actually be best off in Japan.

One of the most interesting bases for comparison is the conversion of foreign currencies at a rate which reflects differences in purchasing power. There is no internationally comparable equivalent of the Retail Price Index, but for this purpose the Inland Revenue has used an EEC index of consumer purchasing power parities—the ratio of the cost of approximately the same basket of goods and services between one country and another.

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UK NEWS

LABOUR

Imports of appliances soar

IMPORTS OF domestic appliances have risen by a third in the first six months of this year while deliveries by UK manufacturers fell by 19 per cent.

Figures, shortly to be published by the Association of Manufacturers of Domestic Electrical Appliances (AMDEA), will show that imports have made considerable inroads into the UK market this year. In the first six months imports, measured by the number of units, rose to 47.6 per cent compared with 35.7 per cent in the same period last year.

In value terms imports rose from £98m to £118m while UK producers' sales fell from £276m to £253m.

The increase in sales of small domestic appliances has offset a fall in sales of more expensive items like washing machines, tumble driers, fridges and freezers, so that the total number of units sold has fallen by less than 1 per cent.

AMDEA is particularly concerned that East European manufacturers are dumping in the UK in order to get hard currencies. Last Friday AMDEA, on behalf of the UK

and other European countries, sent evidence to the European Commission that East European vacuum cleaners were being sold in Europe at below cost. It is likely to follow this with further evidence on refrigerators and irons.

Although June saw higher exports of white goods from UK manufacturers and a very sharp fall in imports of white goods, the total figures for domestic appliances was the worst yet.

The number of units delivered by UK manufacturers was 22 per cent down while imports were 70 per cent higher

compared with the same month last year. Imports accounted for 52 per cent of units delivered.

An estimate of the value of UK manufacturers' goods delivered in June shows sales tumbling to £38.2m from £51.8m last year. But the imports of white goods fell by between 25 and 40 per cent in June. Fridge-freezers and washing machines were hardest hit.

According to AMDEA, some of the decline in UK manufacturers' figures compared with last year may be accounted for by last year's pre-Budget spending boom.

Jason Crisp examines the East European sales offensive

Torrent threatens home producers

SHORT TIME working and redundancies have become the norm for Britain's manufacturers of domestic appliances. Prospects for the white goods industry have seldom looked blacker and there is over capacity throughout Europe. But manufacturers of small domestic appliances like vacuum cleaners, irons and hair driers have the most to fear as the once small trickle of imports from Eastern Europe threatens to become a torrent.

Mr. Chaim Schreiber, chairman of CEC-Schreiber, accuses the East Europeans of dumping. "It is just impossible to compete with their small appliances; we can't even buy the raw materials at the price they are exporting their finished products."

The Association of Manufacturers of Domestic Appliances (AMDEA) with the Department of Trade's support, last week filed a complaint to the European Commission on dumping of vacuum cleaners by East European countries. And early next month it is likely to be submitting similar evidence on refrigerators, also from East Europe.

Even the Italian manufacturers, like Indesit and Zanussi—often themselves on the receiving end of complaints about dumping—are concerned about East European pricing.

The dumping complaint by AMDEA is also on behalf of other EEC countries. Last year Eastern Europe

took 5.2 per cent of the EEC vacuum cleaner market. Most worrying for EEC manufacturers is the rapid rate at which penetration is increasing. The complaint on vacuum cleaners prices shows East European models between £12 and £21 below their EEC equivalent.

One East German machine with an ex-factory price of £15.30 would cost £27 to make in the UK, allowing for a small profit, according to AMDEA research.

The import of cheap irons is also of concern to European manufacturers, as are toasters, food mixers and hair driers which are increasingly imported from the Communist bloc.

The total market for domestic appliances measured in units sold has stayed remarkably buoyant this year with deliveries in the first six months less than 1 per cent below the same period last year.

But the bad news for British manufacturers is that their deliveries have fallen by 19 per cent to 5.9m units while imports are up by a third in the year to 5.4m units in the year to the end of June. In June itself more domestic appliances were imported than were delivered by UK manufacturers.

There is also evidence of a squeeze on margins. At constant prices, sales in the first six months by UK manufacturers are down by about 25 per cent on last year.

The figure for the number of units of domestic appliances delivered in the UK disguises

some structural changes in the market as the statistics cover a wide range of goods from automatic washing machines and dishwashers down to toasters and hair driers. Sales of small appliances have held up while sales of white goods—refrigerators, freezers, washing machines and tumble driers—have been very slack.

The recession has been one of the main causes of the fall in sales of white goods. A high proportion of households have refrigerators and washing machines, so when times are hard many people defer buying a new machine unless their appliance breaks down.

The poor summer weather has contributed to the sluggish sales of refrigerators and freezers. The slow turnover in house sales has also acted as a brake, since the purchase of a new home is often used as an opportunity to re-equip.

The manufacturers are also suffering from a reduction of stocks by retailers because of high interest rates. Mr. Ralph Cohen, managing director of Philips Major Appliances, who remains remarkably optimistic about prospects for this year, says distribution costs are rising because retailers are placing smaller orders more often.

However also believes that the Italians are dumping in the UK. However, Indesit, Italy's second largest domestic appliance company and usually the cheapest, stoutly denies such allegations. Indesit is itself experiencing difficult trading.

The Italian hanks refused further credit to Indesit in June and the company has cut production almost completely while it negotiates with the Italian Government for loan guarantees.

Indesit maintained full production until June as a result of union pressure. It has had particular problems with its small appliances and television sets which cannot compete with Far Eastern products.

Mr. Giancarlo Montali, Indesit's general manager in the UK, said he would be out of stock by the end of September. However, the company was optimistic that it would soon come to an agreement with the Italian Government and deliveries would reach the UK by mid-October or November at the latest.

Improved sales

But not all is gloom. A number of manufacturers in the UK are showing improved sales in the second half of the year. Also, the figures for June alone from AMDEA show a sharp fall in the import of white goods; fridges down 26 per cent, fridge-freezers down 40.5 per cent, automatic washing machines down 37 per cent and tumble driers down 25 per cent.

And on the other hand there was an increase in exports in June in fridges, cookers and spin-driers, albeit from a fairly small base.

Whether June was a freak month or marked the beginning of a new trend is not yet clear.

BA faces 45% rise in fuel bill this year

By Michael Donne, Aerospace Correspondent

BRITISH AIRWAYS expects its fuel bill for this year to amount to about £600m, or about 45 per cent more than the £413m bill for 1979-80, and 150 per cent more than the £240m in 1978-79.

Captain J. W. Jessop, flight operations director, asks flight deck staff in the latest Flight Crew Newsletter to "operate in the most economic way," and help reduce the fuel burden on BA.

He says this year's fuel bill will represent more than 30 per cent of the airline's total budget, "therefore a minimal percentage reduction in fuel bill would have a significant financial advantage."

Further measures to achieve fuel economy are under study, Captain Jessop says. These include more use of electronic fuel management systems, and more use of flight management systems worldwide.

"Our survival in the 1980s will depend on many things, not the least being a strict operational policy," he says. BA is also making good progress in its discussions with other European airlines on the abolition of first-class seats within Europe, and the substitution of club- and tourist-class seats.

April 1, 1981 is still the target for abolishing first-class seating on all its European routes, though this depends on whether the plan is accepted by the Continental airlines on each route.

At the same time, in order to deploy its aircraft more flexibly in Europe, BA is planning to standardise seating to a common 32-inch pitch (the distance between seats) in both club and tourist class.

The pitch will compare with the normal economy-class seat pitch of 31 in, which is already cut to 29 in, on Trident One jets. First-class seating has 34 in pitch.

Captain Dick Twomey, general manager for UK and Irish routes, who is also in charge of the European programme, says the 32 in pitch represents a better standard than present economy in most current aircraft types.

"It almost always shall be offering a lot more leg-room than our independent competitors," he says.

£20m contract for anti-tank missile system

THE DYNAMICS GROUP of British Aerospace has been awarded a £20m production contract by the Defence Ministry for the U.S. TOW anti-tank weapons system on British Army Lynx helicopters.

The missiles will come from Hughes Aircraft Company of the U.S. British Aerospace will provide much of the equipment aboard the Lynx which is built by Westland Helicopters.

The contract follows a £23m development contract awarded some time ago to British Aerospace to adapt the TOW anti-tank missile for use on Lynx helicopters.

Westland will supply the weapon-launcher mountings, and install the equipment, while British Aerospace's work will include a new sighting system for the missile.

The TOW anti-tank missile was developed by Hughes for the U.S. Army, and has been ordered by the air and ground forces of 30 other countries.

BP's 10% offer said to be inspired by CBI guideline

By Nick Garnett, Labour Staff

UNION negotiators accused BP yesterday of distorting its wage negotiations under the influence of CBI "guidelines" and Government exhortations by offering a rise of 10 per cent to its refinery workers at Grangemouth in Scotland.

In the first negotiations of the oil companies' new pay round BP Oil indicated to Transport and General Workers' Union negotiators that it would not be prepared to move much beyond this percentage, which would be applied to basic rates and allowances.

The company said it was ready to re-examine the deal in March, and that any further rises which might accrue from this could be backdated to the September 1 settlement date.

Though the company has made no guarantee of extra

payments, the offer to re-examine the deal has led union negotiators to believe that any apparent support by BP of CBI pay attitudes might be more cosmetic than real.

Grangemouth shop stewards have rejected the offer and asked Mr. John Miller, the union's national secretary for the oil industry, to enter talks with the company.

Mr. Neil Boney, senior Transport and General shop steward, said that unless the company made a very substantial improvement on its offer within the next two or three weeks, bla members realised that they might have to institute industrial action. The union is seeking rises of more than 20 per cent.

"We feel that we are being dictated to by the CBI," Mr. Boney said. "We are not having

CBI guidelines shoved down our throats."

Oil company managements have said privately that they might make initial offers in line with CBI attitudes, but in the end would negotiate on what they believed best for their own companies.

BP Oil is understood to have told union negotiators yesterday that it had had a deficit in the past six months of more than £40m.

The offer was realistic in light of this position, but the company was prepared to re-examine the deal in six months after reviewing profit, ability and overall trading performance.

It adds that demand is at its lowest for 13 years. The union says that the claim is based on the very healthy profits of the BP group as a whole.

'Trotskyists' in CPSA blamed

By Christian Tyler, Labour Editor

A SCATHING attack on the activities of 'Trotskyists' in the Civil and Public Services Association has been made by Mr. Ken Thomas, the union's general secretary. He blames them for the unofficial mass picketing in Brixton this week and last.

In a circular to branches published today he accuses the Socialist Workers' Party and its offshoots of "calculated and callous exploitation of a trade union issue" in an attempt to achieve political martyrdom.

They had "bamboozled" money out of the Association's members and branches, trading on natural trade union loyalties, he says.

Mr. Thomas says he has never been a witch-hunter, and that radical groups could have a part to play in preventing complacency.

The "dafter end of the political spectrum" had "brought to the CPSA initially with amusement." But in recent years because of their tolerance they have increasingly misused the machinery of this union as a result of which our name has sometimes been a joke in the trade union movement.

Mr. Thomas's outburst, which is bound to draw anger on the Left, closely follows criticism by Mr. Len Murray, TUC gen-

eral secretary, of Mr. Stuart Holland, the Labour MP for Vauxhall. Mr. Holland apparently without consulting the CPSA, acted as a picket's spokesman in front of television cameras.

The mass picketing began after two CPSA members at the Brixton unemployment benefit office were dismissed. On Tuesday an appeals board said they should be reinstated, but in other jobs. However, another mass picket was staged the following morning.

Mr. Thomas said the statement by branches was his own initiative. He had not wanted to give the impression that it was a political attack by the union's executive—currently dominated by the 'Right'. Mr. Thomas's own politics are middle of the road.

He condemns the escalation of the Brixton issue, which he says split the union and could have endangered its objectives. This was the work of people whose trade unionism was "suborned by their political aims."

Mr. Thomas goes on to describe the Employment Act—the real target of the demonstration—as "diabolical." But that did not mean the union should have given massive support in a situation if did not control.

Journal complaint upheld

BY OUR LABOUR STAFF

A UNION member's complaint that the special pre-election issues of the union's journal and circulars should have been paid for out of the political rather than the general fund has been upheld by the Certification Officer.

The Association of Professional, Executive, Clerical and Computer Staff is to be ordered to reimburse its general fund for the cost of distribution.

But the Certification Officer dismissed a complaint by the same member, Mr. B. P. McCarthy, about what he described as a political article in the June issue last year.

The Officer said that the major part of that issue and others were in furtherance of the union's "statutory objects."

A further complaint—that union branches had been advised they could buy Labour Weekly from their general funds—had not contained any allegation that a breach of the political fund rules had occurred, and could not be dealt with under the Trade Union Act of 1913.

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Bowater and Firestone workers plan to resist redundancies

BY OUR LABOUR STAFF

BOWATER paper-mill workers in Ellesmere Port, who yesterday received 90-day dismissal notices because of the financial crisis at the mill, plan to launch a joint campaign of resistance to redundancies with workers at the Reed paper works in Kent.

Local union leaders at Bowater yesterday vowed not to conduct any protest which would affect the mill's output but, instead, to maintain production.

The Bowater joint union action committee reacted immediately to yesterday's announcement that 700 jobs at Reed's Aylesbury works may be axed. Only two days before about 1,600 Bowater workers at Ellesmere Port were told the company's newspaper-mill there was to close.

Mr. Denis Saunders, a member of the 10-union Bowater committee, which met almost continuously yesterday to discuss a strategic plan of resistance, said union contacts with the Reed workforce would be made shortly.

"We are now all in the same boat," he said. "We have been competitors but we now have a common interest and must combine our efforts."

Mr. Saunders said the 1,600 workers affected at Bowater planned to write individual letters to MPs "to bring home with as much force as possible the position at Ellesmere Port."

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Stafford survivors in austere venture

DESPITE deep recession in the pottery, with many companies struggling more for survival than profit and short-time working widespread, a new bone china pottery began production last month.

The four people who set up Rose of England bone china in a narrow street in Tunstall, one of the Five Towns of Stoke-on-Trent, are keenly aware of the difficulties.

In June they and more than 200 others lost their jobs when Royal Stafford China, makers of fine English bone china in Stoke since 1845, went into liquidation.

They hope to succeed where Royal Stafford failed by cutting overheads to the minimum and keeping quality high.

For Mr. Kevin Dickin, one of the founders of Rose of England, the contrast could not be greater.

As managing director of Royal Stafford he earned £15,000 a year, drove a Peugeot 604 company car, and was accustomed to taking two ski-holidays every winter with his wife and daughters.

At Rose of England his only association with a company vehicle is the use of a second-hand Fiat van. He has yet to draw any of the £50 a week wage allotted to him and there is no question of ski-ing holidays.

Looking back, Mr. Dickin, who was a diver in the Royal Navy for ten years and a shop-floor worker at Michelin before becoming a cost and management accountant and financial director in the pottery industry, believes the end of Royal Stafford was inevitable.

When he arrived there two years ago "it was already insolvent." Although losses in the first year were cut from £400,000 to £260,000, high overheads, inefficient equipment and a strong pound sent the company to the wall.

The last chance was to try to move some of the production and workforce from Loogton, in the south of Stoke, eight miles to Burslem in the north where John Maddock, the London-based holding company which owned Royal Stafford, had an earthenware pottery.

"Of a workforce of 205, five were prepared to go to Burslem. It might as well have been Outer Mongolia," says Mr. Dickin. The incompatibility of earthenware and bone china skills led to the plan being dropped.

Ooe Friday Mr. Dickin managed to scrape together Royal Stafford's £12,000 wage bill at the last moment and knew it could be done again.

His final duty was to call the

for small sets is up by nearly 28 per cent.

Deliveries of small black and white sets are also up sharply, against all predictions. In the first half of the year, deliveries were up by 16.5 per cent. Black and white imports in the second quarter more than doubled from 100,000 sets to 225,000, while the number produced in the UK fell sharply from 180,000 to 100,000.

The growth in sales of small black and white sets is attributed to homes buying them as second sets for the bedroom, the

children or for use in caravans. The video recorder is also showing strong growth, with deliveries in the second quarter running at more than double the same period last year. In the first six months this year 130,000 video recorders were delivered, compared with 150,000 for all last year. The second half of the year is always much stronger.

There was a distinct slump in deliveries of music centres, especially of those made in the UK.

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MANAGEMENT

What price the cut in working hours?

Alan Pike describes the unions' advance while Brian Groom reports on some companies' experiences with the shorter week

UNTIL recently demands for improved working conditions occupied a far lower priority than pay in the majority of management-union negotiations. Apocryphal stories have been circulating of negotiators agreeing in corridors on how to jettison lavish conditions claims rather than arguing about them around the table.

Such days are gone so far as the shorter working time issue is concerned. Throughout Britain and other European countries employers have been surprised by the force with which union negotiators are now insisting upon reductions in the working week. The conventional wisdom that workers are prepared to be militant only about the pay packet has been rapidly re-appraised.

Reduced working time is a central plank in the TUC's Campaign for Economic and

Social Advance, and its latest survey shows that 43m manual workers in Britain now have agreements which provide a basic working week of less than 40 hours. This is in addition to those groups which have continued to place the emphasis on longer holidays rather than the shorter working week.

Why are workers suddenly ready to fight for perhaps an hour off the working week? An extra 12 minutes per day is hardly likely to produce a radical transformation in leisure activities or life styles. One obvious

reason, close to the hearts of trade union officials and activists, is the effect which a reduction in official working hours and overtime could have on combating unemployment.

The actual relationship between the shorter working week and recruitment is by no means a clear one, as the accompanying article shows. But at a time of high and rising unemployment this argument carries strong moral force among trade unionists. A recent study carried out for the Irish Government and the EEC dis-

covered that more than 72m hours of overtime were worked in Ireland each year. Even if only 30 per cent of overtime hours were replaced by full-time jobs, argues the TUC, this would lead to work for 12,000 people.

One of the favourite slogans of the campaign for reduced time is that the shorter working week is inflation-proofed and cannot be devalued. It is a benefit which, once achieved, has been won for ever. And, while the immediate value of a 39-hour week may be limited, the drive for more substantial

reductions will continue now that the round-figure logic of 40 hours is being broken.

One of the most crucial milestones in the campaign for the shorter working week in Britain came with the settlement of last year's national engineering dispute. This was not the first agreement to produce a reduction in the working week and its terms—one hour off the working week next year—are in some ways quite modest. But its significance in a huge manual industry was enormous, and it did much to demonstrate that the shorter

working week really can be translated from theory into hard agreement. The fact that some other groups of workers have already succeeded in negotiating better terms is due, in part, to the breakthrough in the engineering industry.

Important developments in Britain since the engineering settlement recently reported to the TUC include:

Printing—two of the print unions agreed earlier this year to a one-hour reduction next January, followed by a 37-hour week in July, 1982, for 125,000 workers in general

printing and provincial newspaper offices. But following a dispute by the National Graphical Association, the Newspaper Society and many printing companies have now agreed to the introduction of the 37-hour week from November, 1981, starting with a one-hour cut to 39 hours in January.

British Rail—there will be a one hour cut in the working week from November, 1981, taking some employees to 39 hours and others to 38.

China Clay—The Transport and General Workers Union negotiated a 37-hour week

which came into effect in the China Clay industry last month.

Imperial Chemical Industries—Five manual unions have agreed to the phased introduction of a 37-hour week for 50,000 workers by 1985, beginning with a one hour cut next June.

Philips Industries—There will be a one-hour reduction for manual staff to 39 hours in November, 1981, with white-collar staff gaining a cut from 37½ to 37 hours.

Retail Co-operative Societies—The 178,000 workers in this retail sector will go onto a 39-hour week this November.

The working week of 25,000 professional staff of the National Health Service staff has been reduced from 38 to 37 hours this month and 24,000 university manual workers gain a 39-hour week in November.

A.P.

WHAT EFFECTS have managers felt so far from the cuts in working time that many of them recently conceded to trade unionists? One can only hope the experience of most has been happier than that of Neal Welding Components, a tiny Merseyside engineering company which went on a 39-hour week at the beginning of this year—and quickly suffered an unenviable fall in output at a time when general overloads were rising fast.

"Production has been drastically reduced," complains Ian Bridge, the works manager. "It's amazing what just one hour does to your overall output."

The management's reaction to the problem was to raise prices—only to see both orders and profits decline. To save on overheads it then cut the shop-floor workforce to 15 by getting rid of two apprenticeships—the opposite effect on employment to that often claimed for the shorter working week.

A couple of qualifications must be added. On the negative side, last winter's steel strike and destocking this year by customer companies obviously played their part when orders fell. More positively, the company's position subsequently improved as the summer brought more repair and modification work, with customer companies shutting for holidays. But this upturn proved largely seasonal and in any case was of little comfort to Bridge: as part of the original agreement, he will see a further hour chopped off the working week every year until 1984.

For many British workers, an

hour off the basic week means simply another hour's overtime at the premium rate—"an excuse for a wage rise... a come-on and no more," as one works manager put it.

In 1978 the CBI calculated that if the 35-hour week were introduced during the 1978-79 pay round it would add 5.73 per cent to retail prices. In practice, however, few companies are easily able to isolate the labour cost or price effects of the current, less ambitious cuts in hours.

The majority view among management seems to be that small cuts in hours have neither dire effects, nor contribute greatly to what the TUC describes as "a positive cycle of productivity, growth and employment." In other words the preconceptions of both sides are not being borne out in practice.

Wasted time

At the opposite extreme from Neal Welding, some companies have found the move to a shorter week beneficial. Arthur Billings, general manager of C. Crump, a rail wagon repairer on Deeside, declares himself "more than happy" with his firm's cut from 40 to 37½ hours from August 1979.

It has not led to an expansion of the shop-floor workforce of 30 nor of itself to a growth in the company's operations, but it has been a spur to higher productivity and must be seen as part of a long-term drive to cut out wasted time in a firm which depends on fast comple-

tion of orders to maintain its market share.

In return for the cut in hours the workers gave up their afternoon tea break, while management demanded a 1.6 per cent increase in production percentages (hours used productively as a percentage of total hours at work). This is not quite been achieved—it is up by about 1 per cent—but results so far are considered reasonable.

On the grounds that "minutes are money," management has sought to speed matters by introducing a hydraulic trolley to lift vacuum cylinders underneath the wagons—replacing a less efficient forklift truck—and by putting wheels on everything which needs to be moved. There is a special bonus if production percentage targets are exceeded in a 13-week period.

Overtime, at one time considered essential income by the workers, was finally stopped under the deal after being reduced over a period of years. "This used to be a seven-day trade. It took me 10 years to tell them (the workers) it was a waste of time and that they needed leisure hours," says Billings.

C. C. Crump made a further reduction in hours to 35 on August 4. Management is conscious that this presents a further challenge, and has installed a computer to control productivity.

What is to be made of such apparently contradictory experiences? A great deal. Cuts in hours have a far from uniform effect on companies. Where effects are discernible, there is a marked difference be-



"Ideally, what we would like is a longer working week!"

tween firms which change work practices significantly and invest in new equipment, and those which do not.

For many companies, however, the effects are only barely discernible. Cuts in nominal hours have only a minimal impact on actual hours worked and on output. At Staley Portland, an engineering company near Manchester, the piecework system involves hours and output being determined almost totally by the orders available, and by the bonus incentive for completing a job quickly and getting on to another one—as is the case with

many firms. If the worker does more than the nominal 37½ hours he receives overtime pay, but the management considers that the effect on its 37½-hour week—in operation for about three years—pales into insignificance beside other factors.

Few managers appear to consider that the current batch of shorter week deals is having a marked effect on company employment levels—a main objective of trade unions across Europe—but it is difficult to reach firm conclusions in the present economic climate. It is certainly not a good time to think of taking on extra

workers, and it is hard to judge whether the shorter week helps protect existing employment levels.

Bigger cuts in hours might create more jobs if the orders were available and if productivity increases did not match the cut in hours. "The 35-hour week would lead to men being taken on if the workload stayed the same or increased," comments the sales director of an engineering company which has seen little effect from a 39-hour week, but plans to go down to 35 by 1982.

On the other hand, the CBI argues that long-term employment levels could suffer if companies take on extra workers in the short term without a rise in output—higher unit labour costs would cause prices to rise and competitiveness to deteriorate.

Of the 19 companies questioned for this article, only one reported a definite plan to recruit more, and that was because of an overtime deal rather than a cut in basic hours. However, even this plan has now had to be drastically modified in the light of the recession—an example of how the small effects of hours agreements can be swamped by wider economic changes.

The company is Fordath, in the Midlands, which makes equipment and resins mainly for foundries. The original aim was to stop overtime within five years and to take on more people to compensate. The deal covered 200 workers and was an industrial relations manoeuvre to end backbiting between those departments which got a lot of overtime and those which did

not. The first result was that two new fitters were added to the existing 19 in the maintenance department.

Now Fordath has had to slash overtime by half—which it would rather have done over a long period under happier trading conditions—and has declared 25 redundancies, including cutting the number of maintenance fitters back to its original level.

It is widely agreed that the high levels of overtime worked in Britain's manual sector—currently being hit anyway by the recession—will have to come down in the long term if there is to be any meaningful cut in overall hours. Cuts in nominal hours often simply mean more overtime. But few deals include specific curbs, and resistance can be high among workers who depend on overtime earnings.

Bus stop

Again and again, the whole argument about the effect of the shorter week comes down to the performance of individual managements. Current agreements show that managers have generally appreciated the uncertainty and avoided sudden, large and incautious reductions.

There is a host of one- and two-hour deals, staged deals, delayed deals, "agreements to talk." Many managers, even when they do not make radical changes to work practices, insist that workers give up break times to soften the effect.

Companies also have to consider from which part of the week the time can most

painlessly be cut—often a source of considerable friction. It is no use letting workers out 15 minutes early each night to have them spend it waiting at a bus-stop. On the other hand, there are sometimes problems in lopping the hours off Friday afternoon: one firm had distribution trouble because it used to load the vans at that time.

One major maker of document handling systems put the workers at its coastal factory on a 44-day week but took 15 minutes off each day for its inland plant. "We're not by the seaside and I think our lot would be bloody lost on a Friday afternoon," says the personnel manager of the latter.

The shorter week is not the only method of increasing leisure time, of course. Among the other options are longer holidays, sabbaticals and early retirement. In January the CBI floated the idea of "annual time budgets" of working hours. But the shorter week remains the most popular with trade unionists.

In the meantime, many managers still wonder if they need to concede cuts in working time at all, while the Labour Research Department argues that "the employers' traditional defence—that going it alone is suicidal—no longer applies." On the other hand, present agreements, and for the most part neither so radical nor so widespread as to put other employers at a serious disadvantage when recruiting. Agreements to go down to 35 hours are still comparatively rare.

B.G.

Technical News

EDITED BY ARTHUR BENNETT AND ALAN CANE

POWER

Topping-up not necessary

TUNGSTONE BATTERIES is the latest company to announce a maintenance-free, "sealed for life" car battery.

Hard on the heels of the Chloride group, Tungstone will launch in October a range of batteries which will require no topping up or attention and which will last for, say, six to seven years.

The new batteries will be launched at the 1980 Motor Show, at which Tungstone will also be showing a new range of economy, low-maintenance batteries.

Tungstone is, perhaps uncharacteristically, pessimistic about its new batteries. In the first instance, they will be available only for imported cars and a limited number of popular British cars.

According to Tungstone: "To

be realistic, it is probable that in the coming year the emphasis is going to be on economy, so that we do not anticipate dramatic sales to begin with."

It is proving a hard summer for battery manufacturers squeezed between high interest rates, a high price for lead and the knock-on effects of a relatively mild winter.

All Tungstone's new batteries are being manufactured at the company's new £12.5m plant in Market Harborough.

The new maintenance-free batteries are expected to last at least as long as conventional units, and while Tungstone is as yet unprepared to price the new units, they are expected to cost substantially more than the £12-24 that conventional batteries fetch, depending on the source.

Tungstone is on 0853 65161.

Keeps it all going

ONE of the biggest single battery installations for uninterruptible power supply applications in the UK has now been installed at Reuters Technical Centre, claims ESB Incorporated, Thames House, Millbank, London SW1 (01-834 1189).

This battery is of a type new to the UK and is a rotating no-break system which ensures that the news agency's worldwide computer and communications network is completely secure against disruption by power failure.

At its heart is the ESB Willard Type EX 21 264-cell lead-acid calcium battery which, at the moment of interruption,

immediately takes over the supply of electricity to the main computer, and protects data—as well as maintaining communications—until the auxiliary diesel comes on line, or mains power is restored.

A range of these batteries is manufactured by Exide in the U.S. and is now being marketed throughout this country. The company says that this type is ideally suited to telecommunications applications and will maintain capacity throughout their 20-year long operating life.

Full compatible with UK charging systems, they are available fully assembled, filled and charged, in capacities up to 3,700 a.h.

PACKAGING

Improves look of labels

EXCELLENT PRINT definition and long-term durability are promised in a new range of coated nylon labels available in four styles, with acrylic or polyurethane coatings and satinised finishes.

These are produced for all kinds of multi-colour labels for clothing, textiles, furnishings and bedding, says J. L. T. Smith, 133 Lichfield Street, Walsall,

CATERING

Less energy needed to wash dishes

DISH WASHING is hardly a glamorous subject, but a little modern technology applied to this Cinderella subject can yield substantial savings.

According to Energy Mizer, a recently created subsidiary of the Brent Chemicals International group, its new low temperature dishwashing system uses up to 83 per cent less energy, 45 per cent less water and 50 per cent fewer chemicals than conventional systems.

Much of this saving has been achieved simply by the development of a system which uses hot water only on demand—there is no need to maintain stocks of water at over 80°C during the hours the machine is inactive.

The Energy Mizer system, called "Energy Poundwise," runs entirely at 60°C, roughly the temperature of a domestic hot water system. After scraping, the plates are racked and washed in six to seven litres of wash water to which detergent has been added. Energy Mizer contrasts this with the conventional approach involving 40-150 litres of detergent loaded wash water.

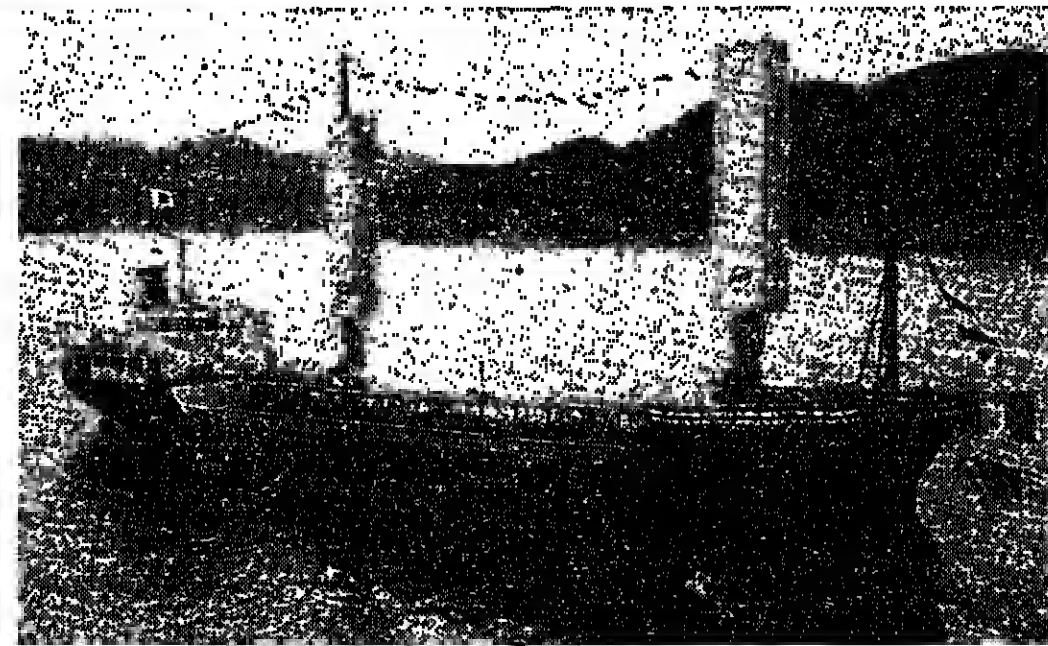
The wash water is then discharged to waste, the whole machine rinsed out and the dishes rinsed again in six to seven litres of clean water to which sanitizer and rinsing aids are added.

The rinse water is then used as the wash water for the next operation.

Conventional systems use rinse water at 82°C so Energy Mizer claims to have eliminated the wash tank sustainer and the booster heater.

A major international hotel chain has begun to replace its existing dishwashers with Energy Mizers at a cost over five years of £2m. In the same period it hopes for savings from the system of £3m.

Energy Mizer is on 01-542 1021.



The Shin Aitoku Maru, Japan's first commercial sail-equipped motor ship, jointly developed by Nippon Kohan KK and Japan Marine Machinery Development Association. Owned by Aitoku Company, it is seen here just after being launched. In September, it will be sailing around the Japan Sea, carrying petroleum products. Construction cost was about £1m. NEK says although the cost is over 15 per cent higher than that of tankers of the same class the ship is designed to enable energy savings of some 50 per cent because of the auxiliary use of sails and various

improvements on the hull design, propeller, main engine, generator and waste gas recycling. The tanker is 66 metres long and 10.6 metres wide. The two sets of rigid sails are made of thin steel frames and canvas, each eight metres wide and 12.15 metres in height. The total area for the two sails is about 200 square metres. These sails are automatically controlled by a built-in micro computer, for manoeuvring and constant setting of the sails at the optimum angle for the maximum utilisation of wind power. Maximum speed is 12 knots.

PROCESSING

Recovers the chemicals

A LARGE number of liquid chemicals, when stored or banded, give rise to vapour which mixes with the atmosphere above the chemical.

Composition of this mixture depends on a number of factors—notably the vapour pressure of the stored chemical and the temperature and pressure of the system.

A new process has been developed to recover this vapour as a liquid for re-use without the need for expensive separation techniques, announces BOC, Great West House, PO Box 39,

Great West Road, Brentford, Middx (01-560 5166).

This process uses liquid nitrogen and is designed to cope with a very wide range of flow rates and mixture compositions.

Nitrogen is inert, dry and widely available. The company can supply it to a variety of packages to suit any applications; compressed in its familiar cylinders; liquid, delivered and stored in bulk; or on site from BOC nitrogen generator or by pipeline from the company's production unit.

HEATING

Maintains the flow

DESIGNED TO spiral around pipe systems transporting materials such as edible and fuel oils, phenol, wax, chemicals, molasses, syrups and powders, is a heating cable called the Deltatrace STP.

This comes in lengths of up to 100 metres and loadings up to 50 watts (different wattages are used for different materials and varying pipe circumstances) and is introduced by Delta "T" (Trace Heating), 155 High Street, Potters Bar, Herts, (0707 44968).

The system consists of twin conductors insulated with 25

"thou" of PTFE and glass braided overall within a braided stainless steel armouring, and is wrapped around the pipes to be heated, prior to lagging, then connected to an electrical supply via a thermostat.

Maker claims the tracer to be waterproof, tough, resistant to most corrosive agents and capable of withstanding high temperatures and transient voltages under upset conditions. There is no hazard to plant personnel because of the product's earthed armouring and the electrical properties of the PTFE insulation.

METALWORKING

High speed blanking presses

ALTHOUGH it operates at high speeds, a Haulick Roos RVD press is claimed to be capable of maintaining consistent accuracy of the components it produces. The Industrial Equipment Division of Hahn and Kolb (Great Britain), Leicester Road, Rugby, Warwickshire CV21 1NY 0788 74261, has recently been appointed to be the sole distributor in the British Isles of this blanking press and others in the range.

Fastest machine in the range is the RVD 25 (press force 25 tons) with an infinitely variable speed from 60 to 800 strokes/min while the largest is the RVD 400-1450 which is rated at 400 tons. It, too, is claimed to be extremely fast for its size, and can operate at speeds up to 180 strokes/min, depending on components to be produced.

These presses can be supplied by Hahn & Kolb as part of complete systems for producing sheet metal blanks in quantity. These systems would include stock reels, decollers, feed units, scrap shears, conveyors and all other necessary equipment.

MATERIALS

Saves time in drawing office

DESIGNED to assist architects and draughtsmen in the preparation of original drawings is a self-adhesive acetate film which allows instructions or explanatory copy to be typed directly on to it.

Material is a printable grade of celluloid acetate coated with a pressure-sensitive adhesive, backed with a siliconised paper release liner.

The ink-receptive film will accept typewritten copy, allowing drafts to produce descriptive matter, thus freeing the architect or draughtsman from laborious hand stencilling or the lengthy process of block lettering.

Transflex is available in a standard sheet size of 500 mm x 700 mm and can be cut to any size for positioning on drawing, plans, etc. It is suggested for use also in the production of internal newsletters, spare parts catalogues and technical specification data sheets.

More from Coated Specialties, Chester Hall Lane, Basildon, Essex.

COMPUTERS

Small but powerful

TANDY Corporation, makers of one of the world's biggest-selling microcomputers, the TRS 80, is about to launch a hand held version—but it is Japanese designed and built.

The Tandy TRS-80 Pocket Computer which Tandy will launch here in October is in fact the Sharp pocket machine. It will sell for £119 including VAT.

Tandy is writing a number of business routines in the elementary computer language BASIC for the new machine including civil engineering, aviation, mathematics, business statistics, real estate and personal finance. The routines will cost between £8.95 to £13.95 including VAT.

The Sharp-in-Tandy's clothing machine has an unusual architecture involving two four bit micro-processors, one to handle the arithmetic functions and the display (a single line of 24 columns) and another to deal with the BASIC interpreter. There is 1.9K of user memory, allowing the creation of reasonably ambitious programs (for such a tiny machine).

It is totally battery-powered and there are claims that it can run for up to 300 hours of continuous use on one set of batteries.

Ted Russell of Tandy will tell you all about the machine on 021-556 6101.



CONSTRUCTION

Reaches the awkward...

FOLLOWING trials in severe winter conditions, in Sweden down to the hot Dead Sea basin and the Jordan Valley, a hydraulic power ladder has been developed to suit a variety of applications. In the UK, it is available from the most prominent Lambourne Engineering, Lambourne, Woodlands, Newbury, Berks. (0488 7111).

Self-propelled, the machine is available with either a petrol or diesel engine, and its working platform can lift to a height of 4, 5, 8 or 9 metres, according to the model.

The engine drives a hydraulic pump which in turn drives two hydrostatic motors, which provide the power and steering in the two wheels.

Under normal ground conditions, stability of the machine is excellent and when operating on steep terrain or in rough ground conditions, extra attachments are fitted as standard to improve stability even further.

Like its versatility for access to trees for lopping, pruning, fruit-picking, etc., it is claimed, but it also promises numerous uses on construction sites and building maintenance areas as well as for electrical and telephone installations.

...and high places

TWO MEN can be lifted to difficult-to-reach jobs by the latest Access work platform.

Called the Zipper 45, it has three hydraulically-operated articulated arms, providing variable heights up to 14 metres and a maximum outreach of 6 metres from centre. Slewing and height control is achieved simply by pressing buttons.

The work platform is manufactured by Access Equipment of Maylands Avenue, Hemel Hempstead, Herts. HP2 7JW (Hemel Hempstead 60101) and is trailer mounted and battery powered. All controls are operated from the platform.

SAVE ON TRAILERS

Businessmen and our own fleet of trailers for sale. Call 01-560 5166.

Indepension

Call 01-560 5166

مكتبة النور



There are no better surroundings for Mercedes-Benz advanced engineering than the sleek, spacious comfort of the SLC coupes and those leaders in sports car luxury, the SL's.

The envy of many and arguably the most handsome cars on the road, the new advanced SLC's and SL's form a technically faultless range.

Although dramatic new developments have taken place under the bonnet, the results have not been extravagant, over-powered cars of little practical value.

Top of the range, the 500 SL has benefited from our boldest engineering developments.

The merest touch of its transistorised ignition arousing a mighty 5.0 litre V8 fuel-injected aluminium alloy engine, developing 240 DIN/hp at 5,000 revs.

New aluminium engines will also be found in the 380 SL and 380 SLC.

This time a 3.8 litre V8 with fuel-injection, developing 218 DIN at 5,500 revs. As you'd expect, the new engines from Mercedes-Benz are not only very

OUR WIDE NEW RANGE OF ENGINES COMES IN THESE TWO SHAPES AND SIZES.

powerful, they're extremely sensible too.

So, while most other aluminium engines have steel cylinder liners, ours have cylinders lined with hard-wearing silicon crystals.

A refinement extending life expectancy and efficiency.

Another advantage of these lightweight aluminium engines is, of course, significantly improved fuel consumption.

All three models benefit from our rugged new torque converter automatic transmission as standard.

The new 280 SL's and the SLC's both have 2.8 litre six cylinder, in line,

fuel-injection engines with twin overhead camshafts.

As always, increased performance and significant technical advances have not led to any radical modifications in the classic design.

You'll hardly notice the addition of the front spoiler on the SL's and the SLC's. And, the 500 SL's boot spoiler is anything but ostentatious.

However, once behind the wheel the difference is plain. A degree of sensitive handling that will surprise and enthuse any experienced sports car driver. While the rear spoiler gives noticeably improved

stability at high speeds. Two features that scientifically and systematically provide supremely efficient road holding and greater safety.

Not to be ignored when safety is being reviewed is the rigid steel passenger cell that was perfected and patented by Mercedes-Benz as long ago as the 1950's.

This cell is integrated with crumple zones at the front and rear which decelerate the force of the collision. So as you'd expect, the Mercedes-Benz SL's and SLC's are remarkably safe.

Of course no sports car made by Mercedes-Benz is purely sleek looks and power. Today's SLC's and SL's provide the ultimate combination of high performance, unthought of peace, quiet and luxurious comfort that for decades has been synonymous with the name Mercedes-Benz.



Mercedes-Benz

A tale of two systems

BY LESLIE COLITT IN BERLIN

YEARS OF reporting from eastern Europe caused this recent visitor to Britain to wonder at the many signs of private wealth he found. Compared with the sprawling middle class houses in English towns, the shabby, prefabricated housing from Rostock to Tirana are monuments to mediocrity and unsocial planning. Little wonder that millions of East Europeans yearn to move into pre-war flats even though, under state ownership, they have decayed to the point where their middle class occupants live in squalor conditions not unlike those of the poor in Britain.

Retail network

The visible contrast between Britain and eastern Europe is enormous. In the Communist countries old and new factories produce what will be the sinews of an industrial society. Outward signs of prosperity remain modest. In Britain, the consumer society is in full bloom, with a highly developed retail network able to sell everybody's wares, including those of eastern Europe itself. East Europeans ask when they are going to reap the same rewards as the British have in their "late capitalist" society.

Although Britons still enjoy greater prosperity, the higher rate of industrial investment and output in the Comecon area is steadily narrowing the gap. East Germans and others in eastern Europe would be better off if their rigidly planned economies were unshackled, and if the onerous burdens of internal security and defence were lightened. Britons, on the other hand, would be worse off today if they could not draw on the great wealth created in the past.

World Bank statistics show Britain's per capita GNP in 1978 to have been \$5,000. The figure for East Germany was \$5,650. Anyone who knows eastern Europe will realise the difficulty in comparing the often inferior goods to East Germany with those available to Britain (not to mention the frequent shortages in the East). But the World Bank figures do illustrate the long hard road that the East Germans and most other Comecon countries have come.

The key to success was not socialism, but the same quality that has brought West Germany where it is today. East Germans have sought to prove to the world that they are as able as the other industrial nations. This motivation, which has propelled the West Germans and the Japanese, has caused East Germany to out-perform Britain in industrial terms.

My visit to one high technology factory in Britain proved fascinating after the many plants I had been through in both parts of Germany and in eastern Europe. Outward appearances often deceive, but the sight of a precision instrument factory housed in 70-year-old buildings—albeit patriotic ally topped by the Union Jack—would cause even an East European to suspect the product emerging from them. Eastern Europe is anything but exemplary in this regard, but priority is given to modern plant and equipment which, in many cases, is being provided by West German companies—and only rarely by British exporters.

In another British factory I marvelled at the sight of skilled workers taking their lunchtime break sleep on their lockers. Now this may be a sensible thing to do under the circumstances. But it is hard to imagine getting a German worker to East or West to snooze during his break, let alone on a hard steel locker.

Rewards

During normal times the atmosphere tends to be more easy going in Polish factories. Workers there are even allowed to pin up on factory walls, however much that may conflict with traditional ideas of socialist morality.

As recent events have shown, the Polish case is a good deal more important than that. Like Britain, Poland can draw strength from its history, though in the Polish case it makes no obvious contribution to material well being. But the lesson of Poland goes deeper. The recurrent waves of strikes—1970, 1976, and 1980—shows that working for the future is not enough; sooner or later the people will want to see the rewards of its exertions.

THE BEAUTY of Holiness is a quintessentially Anglican phrase, its haunting 17th century tones summed up in images of mellow country parish churches, the mellifluous prose of the 1662 Prayer Book and the purity of choral evensong at a cathedral. This image is now responsible for some serious soul searching in chapters throughout the land.

The cause of such soul searching is the vexed question of finance and in particular whether cathedrals should introduce admission charges. Lincoln has introduced a 60p voluntary admission fee for entrance and 20p for children. In the last four months only 125 of the 58,000 visitors refused to pay.

Salisbury introduced admission charges in 1974 when it found the average donation per visitor was 2p. It now charges 30p for adults and 20p for children. St. George's Chapel, Windsor has an admission charge of 80p.

But there is considerable concern at this action. Cathedrals are first and foremost places of worship and quiet meditation. Churchmen are divided over whether cathedrals should charge and there is also opposition among the non-church-going public.

Ripon Cathedral in North Yorkshire is perhaps typical of

one that does not charge. It is of the middle range of cathedrals, ranging from St. Alban's, Worcester, Hereford and Chichester. Between 150,000 and 200,000 visitors are attracted each year to Ripon's 800-year-old cathedral, situated in the middle of a busy market town.

This is a small number compared to the equivalent of 21 fully loaded jumbo jets of visitors to York, Canterbury and St. Paul's in their peak hours.

The Dean of Ripon, the Very Rev. Edwin Le Grice, as a member of the Church Commissioners, is very aware of the problems that cathedrals face. He runs Ripon with the aid of a chapter of three canons, the choir school headmaster and his deputy, two vergers, a secretary and 30 voluntary guides.

The operating budget this year is about £75,000. Half is funded from cathedral endowments and investment of past gifts. One quarter comes from grants, mainly from the Church Commissioners who meet salaries.

Ripon's congregation and visitors to the cathedral last year visitors gave £11,000 and this year under the cathedral's new Ministry of Welcome it is hoped to double that sum.

Mr. Le Grice disapproves of admission charges. At the same time he realises there is

a pressing need to increase revenue from the tourists; he followed the example of Winchester, St. Alban's, Exeter and Chichester. The Ministry of Welcome format works by increasing the moral pressure on

Aesthetic considerations are important at Ripon. Operating a tourists attraction does however cause problems. Youngsters from language schools have a reputation for smoking inside the building and there have been examples of petty vandalism.

The Dean decided to move the cathedral shop out of the church and across the road. Cathedral shops are generally good investments with profit margins on turnover of between 30 and 40 per cent. The stock at Ripon is typical of what most giftshops sell: guidebooks and postcards account for the bulk of sales.

One in ten visitors buys a guidebook, surprisingly mostly after the visit rather than before. Most purchases tend to be under £1 although the shop sells copies of the two records made by the Cathedral Choir.

Ripon doesn't possess a tearoom or restaurant. Turnover on refreshments is low, many cathedrals lose money on their catering facilities and York lets its refectory out on a franchise basis. Catering also means a need for toilet facilities and yet more expense.

Like many cathedral authorities, Ripon is worried about the

behaviour of some coach operators. The more responsible contact the cathedral in advance but some, especially those catering for foreigners, shepherd visitors through quickly and often try to pay just 30p for the whole group.

The cathedral staff are more concerned, however, at the inaccurate information some operators give their customers. To remedy the situation, the Dean has recruited French and German speakers to act as guides.

Ironically perhaps the least popular day for visitors is Sunday. But the chapter is not keen on making too strong a difference between pilgrim and tourist.

Research by the English Tourist Board suggests that a large majority of adult visitors to cathedrals are in search of a particular kind of experience from the cathedral visit. Many stay for more than one hour.

Mr. Le Grice believes strongly in the spiritual dimension of cathedrals as an attraction for visitors. "We give complete priority to the sense of worship, beauty, order, space. People come here because they are hungry for beauty and mystery and dignity. We must not allow clutter or even money making to cheat them of what they need."

But the Dean is under two

Soul searching at the cathedral

BY GARETH GRIFFITHS



visitors to pay a realistic donation.

Ripon has set the sum of 30p per visitor as a reasonable sum. A sign at the entrance to the cathedral points out simply that the cathedral needs 30p per visitor to maintain its work.

The message is repeated in French, German and Dutch. Donations at Ripon have doubled since the scheme was introduced. In addition the cathedral charges 15p admission for its crypt exhibition of silverware and another 15p for the library which houses a fine collection of medieval docu-

ments. Charges for admission to special parts of a cathedral are common practice and have gained wide acceptance.

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But the Dean is under two

Top fillies clash at Goodwood

LESTER PIGGOTT, who showed all his artistry and tactical sense as he dominated proceedings at York, can make a further inroad into Willie Carson's title lead at Goodwood.

The nine-times champion is expected to score on Iskandarraum and Exclusively Raised before going on to take the reluctant Our Home to success in the Gordon-Lennox filly stakes.

There has seldom been more

first-season fillies have already staked claims to classic consideration and I believe that in Exclusively Raised and Silken Knot the Waterford Candelabra Stakes has attracted two more destined to reach the top.

Sir Gordon White's Exclusively Raised has achieved most to date. Runner-up to the brilliantly speedy Tolmi on her racecourse debut this American-bred filly went on to treat her six opponents in the Sweet Solera Stakes with contempt early last month.

Silken Knot's only race to date was in the six furlong Virginia Water Stakes at Ascot 13 days before the Sweet Solera. In spite of looking badly in need of the run, and showing signs of greenness as she looked about at half-way, the Berkshire filly won with authority and in a surprisingly fast time.

Silken Knot will relish the

additional furlong, but at this stage the more experienced Exclusively Raised is likely to be too sharp for her.

There is no pretending that Our Home ranks among the most resolute fillies in training, but the fact remains that she possesses far more ability than most. If Piggott can persuade her to test herself to even half-pence in the Gordon-Lennox Maiden event, she should win without unduly tiring herself.

GOODWOOD

2.00—Ceramide

2.35—Red Gold

3.05—Exclusively Raised

4.05—Our Home

4.40—Alpaga

NEWMARKET

2.30—Clear Verdict

3.00—Overseas Admirer

3.30—Selcken Park

5.00—Mickey Tim

HTV

9.55 am Survival, 10.20 Animated Classics, 11.00 Segue Street, 1.20 pm

12.10 pm Col Coel, 1.45 pm News, 1.50 pm

1.55 pm News, 2.00 pm West, 2.30 pm

WKRP in Cincinnati, 3.00 pm Tenspeed and Brown Show, 3.25 pm HTV News, 3.50 pm

The Good Neighbour Show, 11.00 pm

Choppy Squad

SCOTTISH

5.30 am The Story of World, 10.00

Horses in Our Blood, 10.20 pm

The Artist, 10.35 pm

11.00 pm

11.05 pm

11.10 pm

11.15 pm

11.20 pm

11.25 pm

11.30 pm

11.35 pm

11.40 pm

11.45 pm

11.50 pm

11.55 pm

12.00 pm

12.05 pm

12.10 pm

12.15 pm

12.20 pm

12.25 pm

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FINANCIAL TIMES SURVEY

Friday August 22 1980

Offshore Technology

The North Sea has become the main proving ground for the many advanced technologies involved in offshore oil operations. Knowledge gained is that much more valuable because undersea recovery is likely to be a major supply source for an oil-hungry world.

Growth of a vital sector

By Ray Dafter
Energy Editor

THE ORGANISERS of the Offshore North Sea Conference and Exhibition, to be held in Stavanger, Norway, next week (August 26-29) may have adopted an odd title (where else would the North Sea be but offshore?). But they have put their finger on a vital and growing sector of the world oil industry.

During the next 20 years offshore discoveries could account for between a third and a half of all the world's new oil reserves. Much of this oil will be found in regions outside those covered by the Organisation of Petroleum Exporting Countries (OPEC).

Paradoxically, oil companies are being both driven and encouraged to search for new reserves in hostile offshore conditions. On the one hand they have become concerned at their loss of influence in the traditional producing areas of the Middle East, Africa and South America. They have seen OPEC member governments increase

their involvement in both production and trading activities. Between 1970 and 1979 governments' share of crude oil production increased from 6 to 55 per cent. Those hit hardest were the major international oil companies which once handled 60 per cent. of non-Communist world oil supplies outside North America. This was oil produced by them and sold to them under contract. Their share today is barely 40 per cent.

But at the same time OPEC has raised prices to a point where it is now commercially attractive to search for and produce oil from deep-water fields. In the early 1970s it was costing the industry roughly \$500 in development costs to produce each daily barrel of new productive capacity. In other words, to exploit a field capable of producing 100,000 barrels a day (b/d) at peak would have cost \$50m.

Offshore development—particularly in the North Sea—has altered the scale of costs. British Petroleum's Forties Field, one of the first important UK reservoirs to be discovered, (it was brought on stream in 1975), cost an estimated \$2.68bn to develop. As it is now producing oil at the peak rate of 500,000 b/d, the cost-per-barrel of Forties is seen to be about \$5,380.

The latest North Sea oil project to be approved by the UK Energy Department—Continental Oil's adventurous Hutton Field development—shows there has been a further quantum leap in costs. It is expected that Hutton will cost \$600m (around \$1.4bn) to exploit and that its peak production rate will be 90,000 b/d. On

this basis the development costs work out at \$15,800 per daily barrel—31 times the rate for exploiting a Middle East field a decade ago.

Yardstick

The new Energy Department "Brown Book" on offshore statistics provides a further yardstick. Government officials have worked out that up to the end of last year it was costing the industry on average \$8 to produce each barrel of North Sea oil. For fields under development at the end of 1979 the average was nearer \$10 per barrel. In some cases the costs were as high as \$23 a barrel—clearly a figure that could only be justified with today's high fuel prices.

These statistics are not only relevant to companies and governments with interests in the North Sea. They are of interest to all countries with harsh offshore operating conditions.

The U.S. and Canada may have been in the van of onshore oil development but when it comes to exploiting some of their exposed offshore areas—particularly in the north—they have much to learn from the North Sea industry. It is notable how Chinese delegations have been showing deep interest in technology which could be transferred from the North Sea to the Yellow and South China Seas.

For undoubtedly the North Sea has become one of the world's most important centres of the offshore oil business. According to officials of the UK Offshore Supplies Office—the division of the Energy Depart-

ment set up to help in the development of Britain's own oil supply industry—the UK sector of the North Sea accounts for about a quarter of the orders (to value) placed by the offshore oil industry.

Since the value of UK orders for goods and services reached £2.7bn last year it would appear that the world offshore oil supply market is now running at about £11bn. It could be worth much more.

Like Norway, Britain has been keen to see that its local manufacturers and service companies obtain the lion's share of North Sea orders. To this end the UK offshore operators have agreed to give British companies a "full and fair opportunity" to compete for contracts. Last year the UK supplies industry won its biggest share of North Sea oil business—£2.1bn or 79 per cent. of the total. This compared with a 66 per cent share in 1978 and an estimated 25 to 20 per cent back in 1973.

It is estimated that between 1965 and 1979 the oil industry invested £11bn—or over £15bn at 1979 prices—on exploration and development in the UK sector of the North Sea. Last year capital investment in oil and gas production was about £2bn, or approximately 6 per cent of total UK investment.

But the North West European Continental Shelf, and the North Sea in particular, is not only a source of business for the oil supply industry. It is a test-bed for the oil industry itself.

Oil production platforms in the northerly part of the North Sea have to be designed to withstand wind speeds gusting to 160 miles an hour and sus-

tain wave heights of 100 feet.

The search for hydrocarbons is also taking UK operators into some of the deepest water ever tackled by the offshore oil and gas industry. British National Oil Corporation (BNOC), for instance, is currently leading a group of 19 companies in the drilling of a particularly deep well in the Rockall Trough. The group, which also includes British Gas Corporation, is using the dynamically-positioned drilling ship Discovery Seven Seas, to sink a well through 4,512 feet of water.

The water depth is 2½ times the previous record for offshore drilling in UK waters. The previous record was set in April when Shell sunk a well in 2,004 feet of water in block 206/2 west of the Shetland Islands. This well in turn almost doubled the previous record of 1,132 feet of water set by British Petroleum on block 211/2 in the northern North Sea in October 1977. It is worth noting that in 1984 the record stood at just 88 feet, then held by Amoseas on block 38/29.

Geology

It should be stressed that BNOC and its partners are not primarily looking for oil in its deep well on block 163/6. Indeed it is termed a "stratigraphic information well," which means the consortium is mainly aiming to learn about the geology of the area. But it remains a moot point as to what would happen if BNOC struck oil in any quantity. It is questionable whether oil companies would find any ready developed technology that

would enable them to exploit fields at that depth.

In reasonably favourable conditions, such as those found in the Gulf of Mexico, a fixed steel platform can be installed in 1,000 ft of water. This is the case in Shell's Cognac Field.

The deepest development to be attempted with a fixed platform in the North Sea is British Petroleum's Magnus Field on blocks 211/12 and 211/7 in the northerly part of the UK licensed area. Here the water depth is 610 ft.

BP thought long and hard about installing a tension leg platform—a floating system tethered to the seabed by mooring lines secured under tension. BP says that its system, developed with Vickers Offshore, should be capable of exploiting fields in over 1,150 ft of water. In the end BP decided to stick with known fixed platform technology for Magnus. It was left to Conoco to be the pioneer on the Hutton Field. The tension leg platform to be installed there will be the first of its kind in operation anywhere in the world.

But BP may still break new oil production ground with its Single Well Oil Production System (SWOPS) announced earlier this year. Here BP will use a converted oil tanker, or a purpose-built vessel, to exploit a single well oil field or carry out an extended test on a large field. A pipeline would be lowered from the tanker to a sub-sea well system. Once the pipeline riser was locked in position, the tanker would "suck up" oil into its crude oil storage tanks. All the while the ship would be kept in position by means of dynamic

positioning thruster motors. Once the tanker was full it would raise the riser pipe and sail to a terminal with its cargo. It is reckoned that SWOPS could produce oil at a rate of up to 20,000 b/d.

It is understood that BP has been examining the possibility of using the SWOPS system on a well near its important Forties Field. It has also been reported that SWOPS could be adopted for an extended test programme on the big heavy oil find west of the Shetland Islands, or perhaps in the Porcupine Basin off Ireland's Atlantic coast.

Fractured

With its partners Chevron and Imperial Chemical Industries, BP has already been involved in some novel production tests on the big West Shetland heavy oil discovery, unofficially named the Clair Field. In order to boost the oil flow rate BP fractured the reservoir rock with a liquid pumped under high pressure. The resultant cracks were then kept open by injected grains of sand. In this way oil was produced at a rate of about 2,000 b/d—2½ times the natural flow rate.

The fracture testing, announced earlier this month, followed within weeks a similar experiment conducted by Chevron and BP on the South Ninian structure, 100 miles north-east of the Shetland Islands. This too was a successful operation. Oil flowed at rates of 8,688, 100, 4,874 and 6,520 b/d respectively at four depths.

Given time, other production experiments will be tried in the North Sea "test bed." Technicians at Royal Dutch/Shell

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laboratories at Rijswijk in Holland believe, for instance, that enhanced oil recovery using injected chemicals or special gases could add about a fifth to the amount of oil now considered ultimately recoverable from North Sea reservoirs. Significantly, BP is already carrying out enhanced recovery experiments in onshore oil fields in the Midlands to see if processes can be adopted offshore.

However, one of the most important areas for offshore technological development lies in the sphere of sub-sea well completions. These production systems, placed on the seabed, can be used in water depths of well over 3,000 feet. Just as important, they can be used to exploit small fields or areas of reservoirs too remote to be tapped from the main production platforms. They can also be used to inject water to boost oil production rates.

The fragility of the world oil market has taught producers that every drop of economically recoverable oil is precious. The big increases in oil prices have enabled the industry to develop and utilise bold new technology to exploit the hard-to-get oil.

DEEP THINKERS

Detecting hairline cracks in pipelines is difficult enough at the best of times. Deep beneath the sea, it's positively mind-bending. So bend our minds we did.

The result? The development of crack detection equipment that can be used by divers down to 800ft. The principle is beautifully simple. On certain types of pipe, the weld is magnetised, magnetic ink applied and the presence of any cracks visibly indicated by the ink particles adhering to it.

A major oil company had a very different problem.

How to maximize the recovery of oil whilst utilising the accompanying residual natural gas.

A Press Group company helped them to design a process whereby the gas is reinjected into a reservoir beneath the sea bed. This forces out the oil at a recovery rate significantly greater than the natural flow. Once wastefully burned off, residual gas now has a useful job of work to do.

Interesting enough anecdotes—but what do they prove?



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PRESS

OFFSHORE TECHNOLOGY II

Key role for helicopters

THE DEVELOPMENT of the offshore oil and gas industries world-wide has been rapid in recent years, and much of this progress has been due to the ubiquitous helicopter. While it is going too far to suggest that without this versatile vehicle's ability to hover, land on and take off from restricted sites while carrying large loads, the offshore industries would never have materialised, certainly they could never have been developed so quickly. Moreover, the daily task of maintaining the scores of rigs offshore in many parts of the world would also be much more tedious and probably more expensive if there had to be total reliance on surface vessels.

But the partnership has been mutually beneficial. For the stringent technical requirements of the oil and gas industries in turn have obliged the helicopter manufacturers worldwide constantly to seek improvements in their vehicles, in terms of design, range, payload and safety.

In the initial stages of the development of the offshore oil and gas industries, helicopters were still comparatively clumsy and uneconomical vehicles.

They were largely derived from earlier military designs which paid no heed to the niceties of comfort or styling, or even for that matter of economics. Progressively, however, under the stimulus of demand for increasingly efficient and profitable machines, the helicopter has itself evolved rapidly, and today new types of aircraft of various sizes are either about to enter service, or are on the drawing board for the future, which will ensure that the oil and gas industries' needs will be adequately met for a long time to come.

One of the earliest "work-horses" of the offshore industry, the U.S. Sikorsky S-61N twin-turbine 26/30-seater, with its range of about 360 miles and a speed of about 130 mph, still performs valuable service world-wide in the service of the rigs and platforms, and because of its sheer ruggedness and reliability it is likely to continue in service for some years to come.

But its pre-eminent position may well be rivalled by the new Boeing Vertol commercial version of the big Chinook heavy-lift helicopter—the civil version of the U.S. military "Jolly Green Giants." Also a twin-

turbine engine machine, the commercial Chinook will carry 44-46 passengers and will have a range of 650 miles and speed of up to 165 mph.

This bigger, heavier and faster machine seems likely to revolutionise the North Sea oil business in the years ahead, for British Airways Helicopters has ordered six of these aircraft, with the first due to enter service early next year.

They will be able to fly directly from, say, Aberdeen with a full load out to the farthest rigs such as Brent, bypassing the hitherto extensively used "transit-stop" at Sumburgh in the Shetlands. In the past fixed-wing aircraft have carried the loads from Aberdeen to Sumburgh for the final stages to the rigs. At best this connecting operation has added an extra two hours' travelling time when compared with a non-stop flight by a Boeing Chinook. Moreover, the improved interior styling of the Chinook will bring virtually airline comfort to the off-shore operations.

Forthcoming

British Airways Helicopters has a seven-year contract with Shell UK Exploration and Production for the forthcoming Chinook operations. But British Airways Helicopters is already also thinking in terms of the possibility of a "stretched" Chinook to carry about 66 passengers.

About 90 per cent of all

British Airways Helicopters' business lies in the North Sea. British Airways Helicopters has expanded consistently, and its latest five-year plan is geared to raising the current annual operating profit before tax and interest of close to £5m to £20m. Current investment plans envisage outlays of well over £100m over the next five years, of which about £55m will be spent on aircraft, including the six Chinooks and four of the new 10-seat Sikorsky S-76 Spirit aircraft.

The latter, also a twin-turbine engine aircraft but with a single main rotor, seats about 12-14 passengers and has a range of 460 miles and a speed of up to 165 mph. Although developed primarily for off-shore oil industry in mind, the Spirit has also won substantial orders from other customers for such uses as executive transport, since its elegant styling makes it an attractive vehicle for that role.

To date Sikorsky has received over 370 orders for the Spirit from 85 operators in 23 countries. Many of these companies are engaged in off-shore work of various kinds. The biggest commercial helicopter operator in the world, Petroleum Helicopters Inc. of New Orleans, which operates 350 helicopters, of various kinds in the U.S., has ordered 11 Spirits for off-shore work.

In the UK, British Airways Helicopters has ordered four Spirits and expects to raise this

to ten, while Bristow Helicopters (already the biggest UK helicopter operator with over 70 helicopters of various kinds) has ordered six Spirits.

Also now under development for the early 1980s is the new Westland WG-30 twin-turbine engine utility transport helicopter. Developed from the original multi-role Lynx helicopter, the WG-30 is intended for both civil and military duties, but so far as the off-shore oil industry is concerned it could be used in a variety of configurations, as a six-seater executive aircraft, as a 17-seat airline standard model or in a 21-seat high density configuration, while 'freight or mixed freight and passenger versions can be provided. The operating range of the WG-30 is nearly 400 nautical miles.

The daily task of linking the rigs and platforms with the mainland is largely carried out by these types of twin-turbine engine multi-seat helicopters (the multi-engine capability is regarded as essential for over-water flying in the off-shore support role).

Configurations

But the vast infrastructure of the off-shore industries has created in addition a growing requirement for smaller types of aircraft for executive and liaison duties, or for servicing smaller rigs and platforms. A wide range of aircraft is available, among the most recent additions to the list being the

new Bell 222, an 8-10 seater, and also a twin-turbine engine aircraft, with a speed of up to 170 mph and a range of 480 miles.

The demands of the oil and gas industries have also led to the development of a wide range of helicopter operators and associated companies, and there are now many helicopter bases along the East Coast and in Scotland and the Orkneys and Shetlands.

Although Bristow and British Airways are the two biggest helicopter companies involved in the UK North Sea operations, there are several other smaller operators which can provide specialist services of various kinds.

The British Helicopter Advisory Board, formed in 1969 to promote the use of helicopters in the UK, lists in its latest handbook over a score of commercial helicopter operators, out of a total membership of nearly 100 companies, individuals and organisations which either own, operate, manufacture, repair and maintain helicopters or are in some way involved in rotary-winged flight.

Among the more recent additions to the list is British Caledonian Helicopters, created through the purchase by British Caledonian Airways of the original Ferranti Helicopters and now rapidly expanding with four bases in Shetland, Milton Keynes, Falmouth and Glasgow.

Michael Donne

Award winners

The Queens Award for Technological Achievement 1980 was received by Matthew Hall Engineering for technological innovation in the design of production facilities for Occidental of Scotland's Claymore 'A' platform in the North Sea.

This represents an advance on previous technology showing better utilisation of space and higher reliability on control and automatic shutdown.



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Shake-out in supply boats

THE WORLD supply boat business continues to be dogged by overcapacity and cut-throat competition in large sectors of the market. Yet certain operators have proved that by astute analysis of the market's future needs it is still possible to make handsome profits.

In the North Sea the performance of most British operators underlines the difficulties that have been experienced. Last year Ocean Incepcor (OIL) lost £0.5m, compared with a profit of £1.6m the year before. Star Offshore's performance was even worse, moving from a profit of £2.1m to a loss of £1.3m.

As a result some operators have decided to call it a day and withdraw from the market. The most recent example was Trafalgar House, which last month sold its supply boat subsidiary, Offshore Marine, to America's Zapata Corporation for £7m in cash.

Offshore Marine was formed in 1964 and claimed to be the largest British operator of supply and anchor handling vessels in the offshore oil industry. Its fleet of 24 vessels has now gone to swell Zapata's fleet of 51 vessels and will make the latter one of the largest supply boat operators in the world.

Trafalgar House has been reviewing its exposure to the offshore supply boat market for some considerable time, because of the poor returns being made, and the relatively high investment required to keep Offshore Marine competitive. Last year Offshore Marine lost £0.4m on a turnover of £11.2m.

Defaulted

Another casualty of the depressed market has been the British Virgin Islands-registered Northern Offshore, in which John Swire has a 10 per cent stake. It has been losing substantial sums of money and has defaulted on many of its borrowings.

Northern Offshore's subsidiary, InterSub, was the leading operator of manned submersibles in the North Sea, with 12 submersibles and five mother ships. In common with other operators, including P & O and Vickers, InterSub found the market very depressed and its operations were terminated in May of this year. Many of the vessels are now laid-up in Dundee.

The collapse of InterSub seriously damaged the parent and it is understood that a liquidator is to be appointed shortly. One of its vessels, the 1977-built Sea Producer, has already been sold to Bugge Supply Ships of Norway, and the other six vessels are believed to be up for sale.

However, not every operator has been doing so badly. Britain's Seafarth Maritime, owned by Taylor Woodrow and James Finlay, is steadily building itself up into a major force in the offshore support vessel market and Wimpey Marine, part of the UK construction group, is quietly establishing itself in the market for the larger and more powerful vessels.

Elsewhere, Sweden's Stena Line has been making a name for itself with its four multi-functional support vessels (MSVs), which it is building on "no spec" in Sweden. It seems to have anticipated what the market wanted—the key to success in the offshore business. Zapata is another successful company. Its earnings from support vessels rose by 41 per cent during 1979 and look like rising strongly in the current year.

Supply boat operators these days need to be fairly large and widely spread, since there are considerable economies of scale and by owning a fleet of various types of vessels it is possible to avoid the pitfalls which have trapped companies like Northern Offshore.

The case of Northern Offshore is illuminating since it underlines the difficulties facing a relatively small, and undercapitalised company operating in a market undergoing rapid technological change.

Downturn

It was established by a group of investors in 1972. By 1975 it had built up interests in 22 supply vessels but because of the chronic overcapacity in this market it decided to withdraw and concentrate the bulk of its activities in the manned submersible market, which it had identified as a major growth area. When the latter market turned sour, Northern Offshore did not have the spread of activities to cushion it from the downturn, or the capital to enable it to continue operating until the market turned for the better, as it is now doing.

In its latest edition of the British Shipping Review, the General Council of British Shipping (GCBS) says that UK operators face a dilemma. They want to obtain as much of the business as possible, but the previous oversupply of tonnage and low financial returns has made it difficult to justify re-investment on a large scale.

The GCBS reports that UK flag vessels (not all of which are British-owned) have 56 per cent of the UK North Sea market, but the principal beneficiaries of the expected upturn in demand for supply vessels will be the foreign flag owners "who have built with the aid of heavy subsidies."

The GCBS believes that UK operators are being discriminated against in other countries' offshore zones where domestic flag operators get the "lion's share" of the business. In addition, the GCBS argues that UK owners are at a disadvantage in UK waters, which are open to all, because foreign supply boats are often able to use smaller crews.

Generally, the market for most types of support vessels is strengthening in line with the improvement in exploration activity. Vessels are having to be more powerful and there is an increasing tendency to employ multi-purpose vessels which can do a wide range of jobs. The key to success is to strike the right balance between specialisation, cheapness and flexibility.

A recent study by Derrick Offshore, "A European view of Offshore Service Craft 1980-83," has outlined the prospects for the market for four separate categories of support vessel—anchor handling/supply tugs, platform/pipe/straight supply vessels, pure anchor handling tugs and diving support vessels.

With anchor handling supply vessels, which lay the anchors and service the semi-submersible drilling rigs, Derrick notes that at the start of the 1970s owners were building tugs of 3,000-4,000 bhp. Market needs now dictate that many of the vessels should be three times more powerful.

The really powerful vessels of between 9,000 bhp and 10,000 bhp have been earmarked for supporting deep-water drilling in the northern Norwegian waters. On Derrick's estimates there is at present a surplus of the very powerful anchor handling/supply tugs. However, it says that there is

scope for building a few more vessels in the power range 7,000-8,000 bhp, because nearly all drilling rig contracts in the North Sea will use this class of vessel.

The market for specialist anchor handling tugs is much more limited and as a result this sector was worst hit by the slump in the supply vessel market. Many supply boat operators converted their vessels to handle anchors as well as this exacerbated the oversupply of tugs.

At present specialist anchor handling tugs are used mainly in the construction, as opposed to the exploration phase of oil development. Most of the exploration rigs are serviced by the combination anchor handling and supply vessels, and anchor handling tugs specialise on platform construction projects. Consequently, Derrick sees no improvement in the market for these vessels until the 1982 platform construction phase starts, and possibly not until the gas gathering trunk lines are laid in 1983/85.

Among the platform supply ships in the North Sea the trend is towards ultra large vessels which can act as storage vessels and remain offshore for long periods, or in smaller vessels which can carry good volumes of materials but not all simultaneously.

These days pipecarrying space is more important than

deadweight tonnage. There is also an increased requirement for more ships with "jockey" controls which allows them to safely manoeuvre alongside platforms in the worst types of weather.

The final sector reviewed by Derrick is diving support vessels. In the early days of the North Sea development these vessels were often converted from old trawlers or ore-carriers. However, as the workload increased and concerns for divers safety mounted there has been more and more specialist vessels constructed.

To save time when working near platforms and reduce damage to subsea pipelines caused by ships' anchors the trend has been towards installing dynamic positioning (DP) systems which are completely reliable, or in the jargon "fully redundant."

Ideally these vessels should be semi-submersible since this gives much greater stability and enables round-the-year working. However, construction costs are higher and these vessels tend to be less flexible. So various hybrid mono-hulled vessels have been built, often on a speculative basis. Stena Line, for example, is building a series of mono-hulled diving support vessels which also act as fire-fighting and emergency support vessels. In addition, they have a sizeable storage capacity.

William Hall



Italian state-owned enterprise for energy and chemicals

From the Mediterranean to the North Sea, in warm and cold waters: a vast experience in offshore activities

From the Mediterranean to the North Sea, in warm and cold waters, the co-operation of countries exploring for, producing and distributing energy is contributing to more sustained economic growth and stability.

In the Mediterranean Sea, where Italy is like a bridge between Europe and Africa and the Middle East, ENI, together with the Algerian state-owned company SONATRACH, is creating the first physical connection between Europe and Africa.

Commencing in 1981, a huge submarine gas pipeline from Algeria crossing Tunisia and the Sicilian Channel will transport large quantities of natural gas to Italy.

In the North Sea, AGIP, the ENI group oil company, jointly with other leading companies, is developing the oil and gas resources, in co-operation with the European producer countries.

AGIP U.K. and NORSE AGIP are focal points of the ENI group presence in British and Norwegian waters.

The ENI group, in 1959, was the first in Europe to install an offshore drilling platform (for the exploitation of the "Gela 21" well off Sicily) and to find gas in the Ravenna offshore.

To-day the ENI group is operating in almost all the oceans of the world, exploring for and producing oil and gas through AGIP.

In addition the Group companies SAIPEM, SNAMPROGETTI, NUOVO PIGNONE and TECNOMARE are active in the various sectors of offshore technology, while SNAM transports and markets natural gas.

Wherever these companies operate they are making valid contributions in terms of technology and experience in all offshore activities.

مكتبة النخيل

OFFSHORE TECHNOLOGY III

Developers launch new platform designs

BY THE mid-1980s there will be at least eight distinct types of production facility exploiting oil from beneath the North Sea. They will include both adaptations of existing technology and complete departures from it, designed to cope with ever-increasing water depths and barely economic reserves.

Although the cradle of offshore technology was the U.S. Gulf of Mexico, it is the North Sea, with its more hostile waters, that is now pushing the oil industry up its learning curve faster than ever before. Higher oil prices have encouraged the oil companies to get their designs off the drawing board and into the water. Some field developers, with one eye fixed on the day when they will be faced with oil and gas prospects in over 1,000 feet of water, have opted for innovative designs where more conventional platforms would have sufficed.

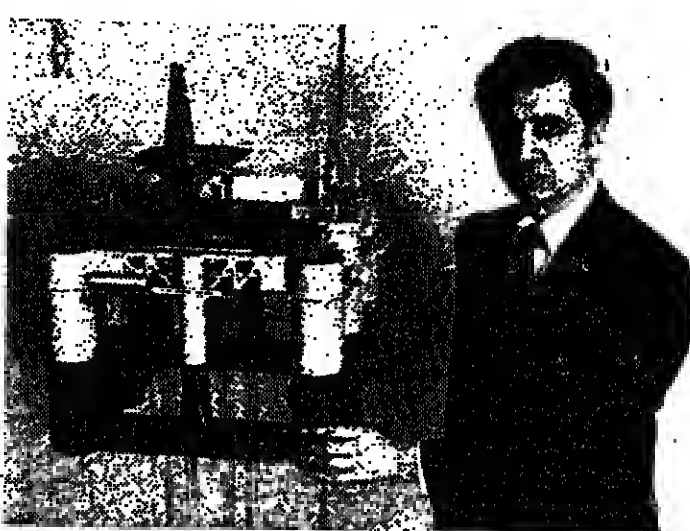
Springboard

Conoco, for example, will use a tension leg platform (TLP) on its Hutton field, which received the official blessing of the UK Department of Energy earlier this month. It essentially consists of a buoyant steel structure anchored to the seabed with vertical mooring lines made of tubular steel. Although the water depth at Hutton—435 feet—is within the capability of more conventional systems, a TLP was chosen to serve as a springboard into deep-water development outside the scope of proven technology. Engineers believe the design to be cost-competitive with traditional platforms in 500 feet of water and practicable in depths of up to 2,000 feet.

A number of companies—including BP, Amoco, Scott Lithgow, Arge, Aker and Fluor—have presented similar designs in recent years but Conoco's, designed by Brown and Root and Vickers-Offshore, will be the first in operation.

Probably the most ambitious development yet planned for the North Sea is Shell's underwater water manifold centre (UMC), destined for Central Cormorant. Described as the most advanced subsea production system built, the UMC was designed by Vickers-Offshore and based on Exxon's experimental submersible production system, which has been tested offshore Louisiana. The UMC will be installed next year. It will produce about 40,000 b/d of oil, which will be sent to the South Cormorant platform, from where the UMC will be remotely controlled.

Elf, too, has decided to innovate with the development of the North East Frigg gasfield in the Norwegian North Sea.



Mr. Jack Mercier, one of the project engineers, with a scale model of the tension leg platform (TLP) which Conoco will use on its Hutton field.

It will use a subsea well manifold serviced by an unmanned articulated column, from where the wells will be hydraulically controlled. The column will operate by radio control from the main Frigg field. North East Frigg lies in only 340 feet of water. But if the system proves commercial under North Sea conditions, Elf will have little hesitation in proposing the technique for fields in water depths of up to 1,500 feet.

Other companies have wavered on the brink of innovation and ultimately drawn back. BP considered a tethered buoyant platform (TBP)—similar to a TLP—for Magnus, but finally decided against it because the field's reservoir characteristics would have required two TBPs. BP opted instead for what will be the tallest fixed steel platform yet built for the North Sea. It will be installed in 610 feet of water in 1982 and cost BP almost \$1.5bn.

The fixed steel platform has dominated the exploitation of oil and gas reserves worldwide and has become almost de rigueur for clearly commercial fields in water depths of up to 500 feet. The oil industry is unlikely to become disenchanted with steel unless severe corrosion or fatigue problems arise.

How deep can steel platforms go? Although the steel platform built for Shell's Cognac field in the Gulf of Mexico stands in a water depth of 1,000 feet, wind and wave conditions at its location are relatively mild. A platform of that size for the northern North Sea, although it could probably be built, would be prohibitively expensive. If they have a limitation, it is one of economics rather than technology.

For much the same reason the concrete gravity platform

Alternatives

For fields without the pipeline option, there are other alternatives to a concrete platform. For instance, Phillips' marginal Maureen field will be developed with a steel gravity structure. Designed by Italy's Tecnomar, it will consist of a steel jacket and deck with three steel storage tanks resting on the seabed. UK platform yard Howard Doris has also come up with hybrid designs using a steel jacket and either concrete or steel storage tanks.

So is the concrete gravity platform obsolete? Mr. Albert Granville, managing director of Howard Doris, thinks not. He argues that concrete must still be considered when storage or platform buoyancy is required. Marginal fields provide their own special problems. They are extremely sensitive to changes in capital cost and development

schedules and are more likely to continue with existing technology to avoid the unpredictability involved with innovation. This was reflected earlier this month when Shell and Esso decided to develop the small Tern field with a conventional fixed platform after considering a complex underwater installation connected to a floating unit.

Yet the use of a simple floating platform can substantially lower a field's commercial threshold. Pioneered by Hamilton Brothers on its 50m Harwell Argyle field in 1975, floating production units are expected to find increasing use on the North Sea's marginal fields. Argyle uses a catenary-moored converted semi-submersible drilling rig as its production unit, as will BP's Buchan Field, due on stream later this year. But with the current buoyancy of the rig market, existing semi-submersibles are unlikely to be cheap to buy and, as Buchan has shown, conversion work can prove more costly and prolonged than originally thought.

Operators are now more likely to turn to purpose-built semi-submersibles. Both Occidental and Texaco are well advanced with plans to order such platforms to exploit small pockets of oil close to their existing fields. Another variation on the same theme is to use a ship-type vessel, similar to a VLCC, as a production facility. BP and Mobil have both recently proposed systems of this type for deep water development. Exxon and Norwegian Contractors, meanwhile, are looking at concrete floating platforms.

Because floating systems are free to move under wind and wave conditions, production wells have to be completed on the seabed and connected to the deck via a flexible riser or flowline. Perhaps one of the most significant technical advances of the 1970s, subsea completions are now in widespread use in the North Sea. Indeed the North Sea is now the focal point of the subsea industry, drawing all the main hardware manufacturers—Cameron Iron Works, Veeco, McGrooy, National Supply and others—to its shores.

Although there are few fields being developed completely with subsea wells, the industry has been kept ticking over with a constant stream of orders for individual satellite subsea completions, placed on the periphery of reservoirs. Their purpose is either to augment field output by producing reserves outside the drainage area of platform wells or to inject water, thereby pushing oil towards the platform wells.

James Joseph

Record drilling activity

OFFICIALS in the petroleum production division of the UK Energy Department are currently wading through a pile of applications from companies hoping to obtain concessions in the seventh round of offshore licensing.

It is one of the most interesting rounds put on offer by the Government. For the civil servants engaged in vetting the applications it is also one of the most challenging. Once again the Government has decided on a discretionary system of awards (instead of a straight auction as favoured in the U.S. and elsewhere).

Energy Ministers, who make the final decision about which company is awarded which block, want to be satisfied that the licence group is technically competent, financially sound and willing to comply with all the licence conditions, such as drilling commitments, giving UK manufacturers and suppliers a fair opportunity to compete for orders, and so forth.

The North West European Continental Shelf is still one of the most attractive drilling areas in the world, so it is hardly surprising that most of the major oil companies are among those vying for seventh-round licences.

What is adding further spice to these concessions is the fact that, for the first time, these companies are being allowed to nominate some of the blocks on which they would like to drill. At least 20 of these self-chosen blocks will be awarded. Each will carry a £25m signature bonus fee which will go into Government coffers—a new form of revenue-raising.

It is an idea which could be taken up by other governments with offshore concessions. Not only is the method a potential revenue earner (over and above the normal taxation system); it also means that companies are drilling where they think there is a chance of finding oil or gas. Consequently, the chances

of success are increased.

But the novelty—and headache for civil servants—does not stop there. The Government has said that preference will be given to those applicant groups involving a substantial British interest. Consequently, we find that among those applying for licences are consortia often headed by a U.S. or Continental oil company and including UK food companies, UK banks, UK industrial groups and UK investment institutions. Some of these non-oil companies are clearly applying with a gambler's mentality, hoping to strike it rich. Others have longer term intent. They may see the North Sea oil venture as a diversification opportunity which could take them into other offshore areas.

They have recognised that offshore drilling forms an important, and growing, part of the world oil and gas industries. According to British Petroleum, discoveries offshore may comprise some 40 per cent of all new reserves that are to be found over the next two decades. It is an area of exploration and production which requires specialisation, and one which will benefit from new venture capital and fresh ideas.

Chinese

These facts have also been taken on board by the Chinese, who have called on Western companies to help them evaluate the oil-bearing potential of offshore areas. More than 30 companies are now concluding the evaluation of seismic showings in a large area of the Yellow and South China Seas. China has broken into three offshore areas into three sections for these surveys: the Bonhai Gulf where the Japanese and French are operators; the Yellow Sea, which has been divided between French and British operators; and the South China Sea, where American companies are the operators.

The companies which have

carried out seismic surveys in these areas will not be given preference in developing future licence concessions. But no doubt their willingness to take part in the seismic operations will stand them in good stead when tenders are called. British Petroleum has taken a further step; last month it announced it would shortly be drilling two geological information wells in the Yellow Sea. The announcement angered U.S. companies, which claimed BP was trying to gain an unfair advantage in the race for exploration rights.

But then the competition within the industry for good offshore oil exploration acreage is becoming more intense. Offshore drilling activity is at record levels and the signs are even more encouraging.

The Oil and Gas Journal recently provided a useful guide to the location of drilling rigs which shows that oil companies are spreading their interests across the world. The situation, in May, was: North America—185 rigs working, three idle; Latin America—66 working, one idle; Asia—57 working, six idle; North Sea—46 working, one idle; Arabian Gulf—38 working, two idle; Africa—32 working; South and East Europe—32 working, one idle.

The latest statistics show that there is hardly a spare rig to be hired anywhere in the world. In June it was reckoned that of the 242 jack-up rigs available for contract, 241 were employed. Of these, 222 rigs were actually involved in drilling—as opposed to being laid up for repairs or travelling from one well site to another. Companies looking for semi-submersible rigs are in for an equally frustrating time. All of the available 114 semi-submersibles are said to be under contract; 109 of them engaged in drilling.

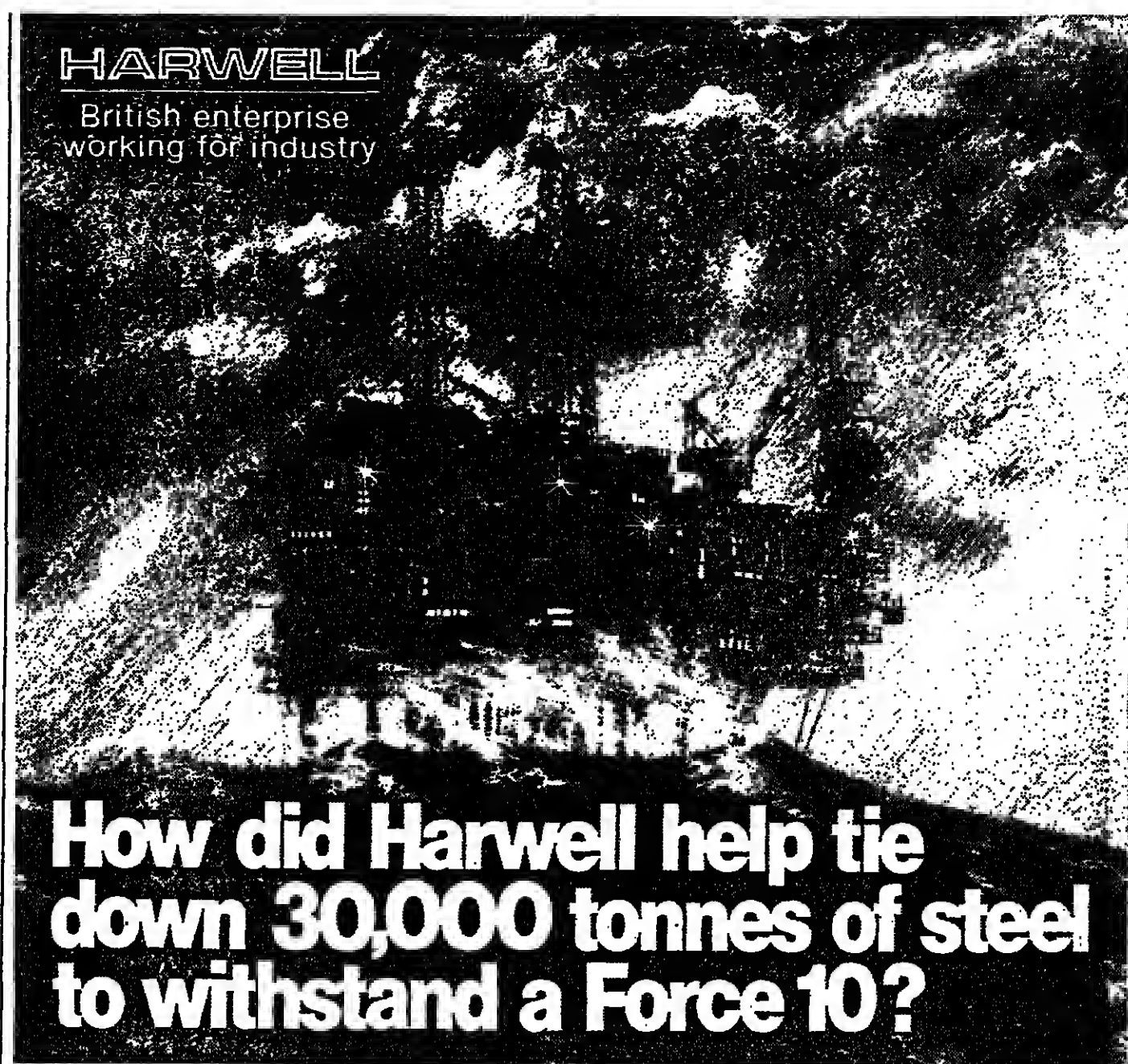
The same source for these statistics—stockbrokers Merrill Lynch Pierce Fenner and

Smith and Offshore Rig Locator—illustrate how the tight market has boosted rig construction work.

Ray Dafter

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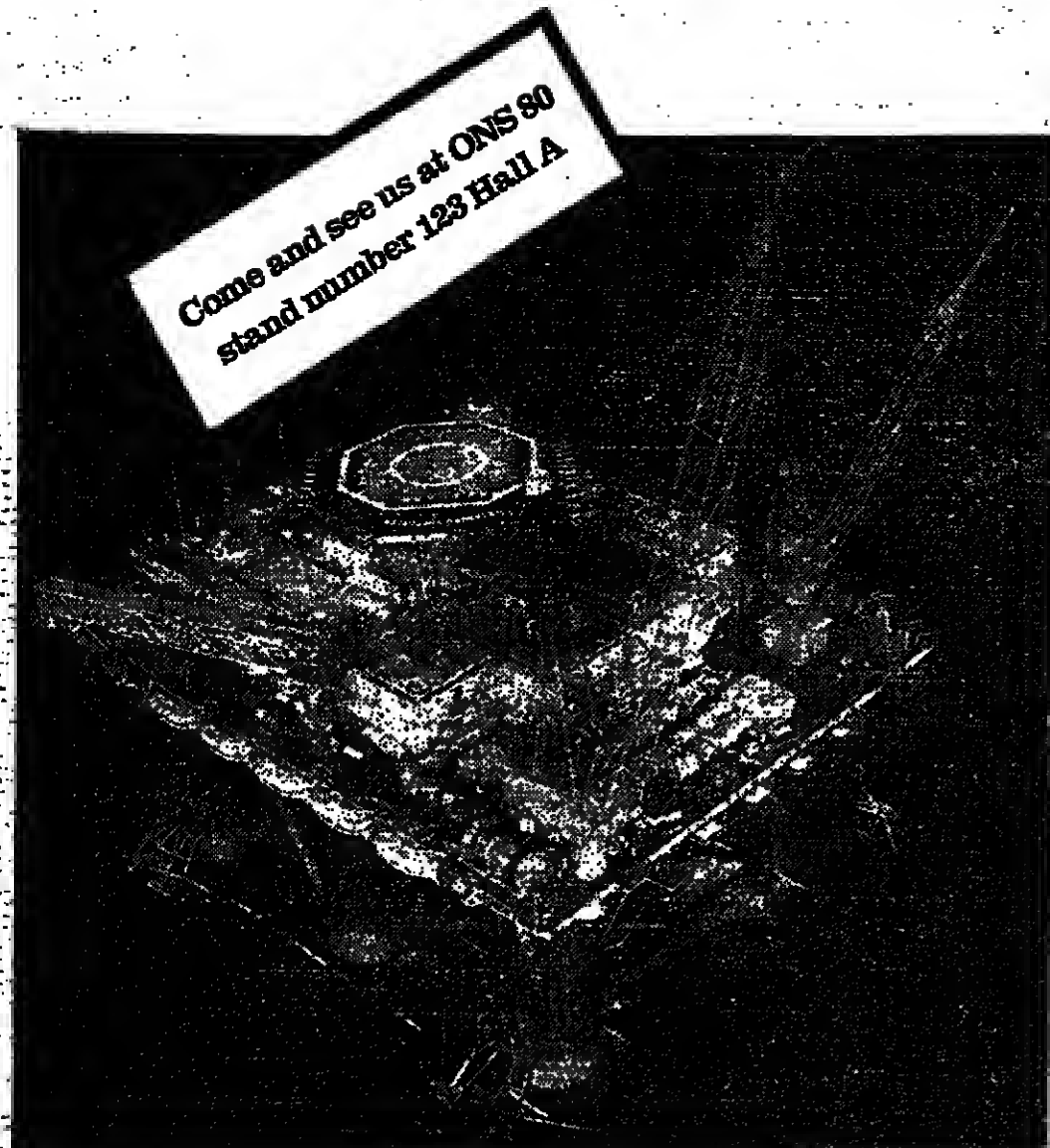
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Amoco International Oil Company

OFFSHORE TECHNOLOGY IV

Sophisticated radio links



This is "Treasure Supporter", the first in a series of accommodation and service rigs. The safety, high technical standards and comfort built into these structures make them the most advanced semisubmersibles in the North Sea.

IT IS tempting to think of workers on oil production platforms as isolated and cut off from normal day-to-day communications. In reality platforms have access to nearly all the services enjoyed by land-based customers of the telecommunications authorities.

The operational needs of platforms are very sophisticated indeed. Every day information about production figures has to be sent to land-based terminals, as well as written requests for supplies and helicopters to ferry men back to the shore. Increasingly platforms are relying on computers to monitor pipelines for cracks and to control the flow of oil and gas from the sea beds.

Computers are constantly measuring and relaying information so there must be no break in communications; it could spell disaster. In addition, there is the conventional need for telephone and radio communication with ships and helicopters delivering vital supplies.

All the maritime forms of communications are based on radio. There is an extensive system operated by the Post Office which provides emergency long-distance links with the shore. However this is not sufficient to cope with the large amounts of information which need to be sent each day.

Programme

So the Post Office has embarked on a £10m investment programme to provide offshore oil platforms in the North Sea with the type of communications which hitherto have been enjoyed only by land users. They have employed a system using microwaves—extremely high frequency radio waves which have the ability to carry vast amounts of information.

Where oil platforms are in sight of land—as most are in offshore fields throughout the world—microwaves systems are commonly employed. Microwaves, like light, only travel in straight lines so that only those platforms close to the shore can receive the signals.

Microwaves can carry several telephone channels, computer data, facsimile signals simultaneously providing platforms with all the information they need. But in the North Sea, some platforms are more than 75 miles from land, well out of the range of normal microwaves.

The Post Office has pioneered the use of a technique which was developed by Marconi Communications, part of the General Electric Company, to transmit radio signals over difficult terrain.

It still uses microwaves but their range has been extended to reach more than 400 miles. The technique is called tropospheric scattering. Very powerful microwaves signals are projected in a narrow beam towards the horizon in the direction of the platform from the shore transmitter.

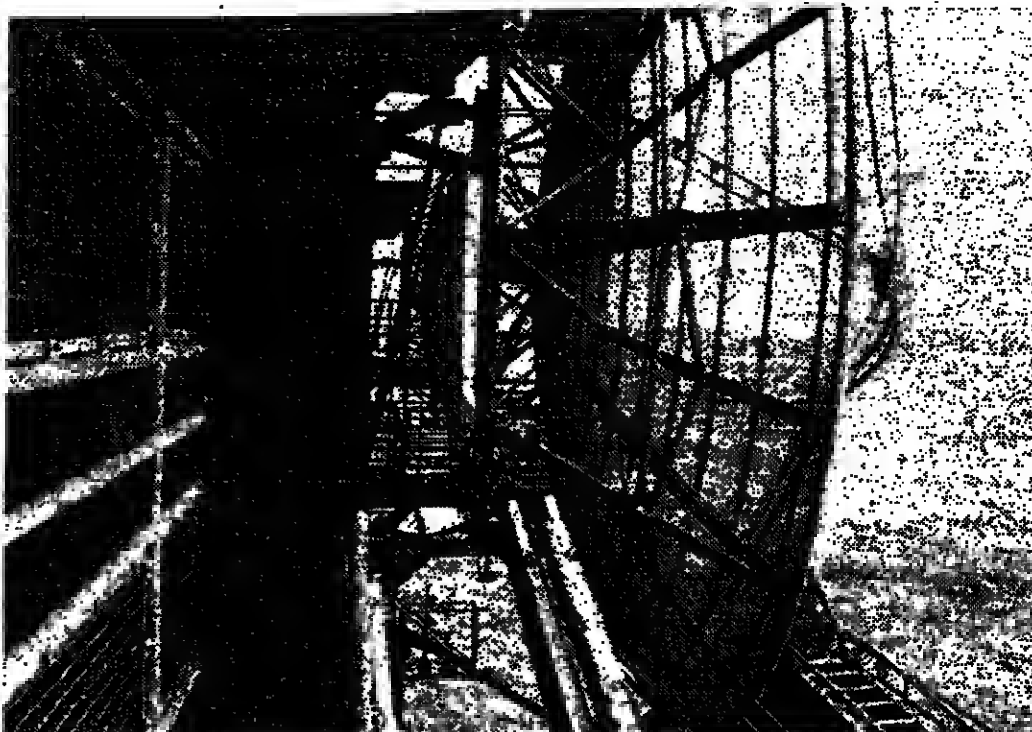
The ever-present turbulence in the earth's lower atmosphere, the troposphere, causes the beam to scatter, in the same way that the beam of a torch is visible even though its owner may be out of sight around a corner.

While much of the power of the beam is lost, sensitive aerials are able to pick up the signals many miles away. Compared with the original transmitted signal they are one thousand trillion times weaker but powerful amplifiers are able to boost the signal.

The Post Office inaugurated its tropospheric scatter system in 1976 when Mobil's Beryl Alpha platform was the first oil platform to be able to have an automatic telephone system. From the platforms the workers are able to link into the worldwide telephone network without having to call the operator. More than 15 platforms have now joined the service.

Microwaves are not the only way of linking long distance. The Post Office, for example, considered the use of satellites and undersea cable but both were considered costly alternatives. Phillips does have a satellite to serve one of its platforms and it may well be with the rapid growth of satellite communications, costs will fall to make them more widely used in this application.

The Post Office considered



Tropospheric scatter aerial forming part of the communications system designed by Burmah Engineering Telecommunications Projects Division for Total Oil Marine's Frigg Field in the North Sea

that undersea cables were unsuitable because they would be prone to damage from passing ships' anchors, from the heavy fishing in the North Sea, coupled with the immense amount of activity around oil platforms.

It is only in the central and northern areas of the North Sea where tropospheric scatter techniques have to be employed. Because of the need for high reliability each group of platforms is normally served by two master stations which operate alternately. The master station transmits signals to others nearby using conventional microwave radio.

The Post Office has built two

shore stations too serve these northern most fields. One is at Mormon Hill in North East Scotland; the other at Scousburgh on South Shetland.

Since most other platforms throughout the world are within sight of land it is unlikely that tropospheric scatter systems will be employed outside the North Sea by oil companies.

On the platforms themselves hand-held radios are a common sight as the structures are so large that workers often need to talk to each other even though they are on opposite sides of the platform. Hand-held radios—walkie talkies—are used to direct cranes during highly dangerous loading and

unloading operations and to help helicopters to land during the final moments of touchdown.

To meet the social needs of workers there is usually a public address system, which can also be used to provide music and other entertainment. At the moment television is not normally provided unless pre-recorded cassettes are used, although some companies are keen to provide better facilities.

As well as conventional systems each platform has access to emergency maritime radio services which can reach as far as land.

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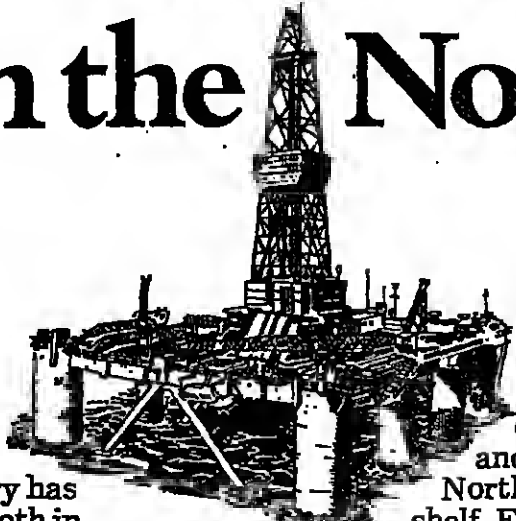
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IN 1859 when "Colonel" Taylor drilled the first oil producing well in Pennsylvania it was simply a 60 ft hole out of which crude spurted at a minute cost per barrel.

Well over 2m boreholes have been sunk since then and as the working environment has progressively worsened they have come to depend more and more on modern instruments, control systems and communications, both for exploration and production.

Fruitful exploration under the sea would be impossible without electronically assisted magnetic, gravimetric and seismic equipment, backed by powerful computers. Furthermore, with the latest navigational satellites a rig or ship can be repositioned over a spot on the sea bed to within a few yards. Such results can also be obtained with inertial navigation systems of the kind developed for military aircraft applications. Similarly, station keeping can be maintained with ultrasonic beacons on the sea bed.

Then, when the signs are right and the decision is taken to drill, electronic techniques nowadays play a vital part in ensuring that huge investments are not wasted.

Inertial techniques feature again in a system developed by Ferranti which will plot the course of drilling down to 8,000 ft with an accuracy of 6 ins with respect to the top of the borehole. Contained in a 10-ins diameter capsule are three precision accelerometers mounted at right angles on a gyro-stabilised platform. Any tiny accelerations they experience are converted in displacement by two mathematical integrations and the readings stored at 0.1 second intervals as the capsule is rapidly lowered down the bore.

Plotted

On the surface the readings are extracted from the semi-conductor store and automatically plotted on paper. The design was a world "first" for Britain.

It is when the production platform is finally placed, however, that control technology of the more customary kind takes over.

In a typical case oil is rising from a number of bores up pipes equipped with chokes (restrictors to flow) and will be fed into one or more units in which gas is separated from oil at about 100 psi pressure.

The gas is either flared off (burned), or increasingly nowadays recovered.

The oil is pumped to shore at pressures in the 1500 psi region and at rates which can easily exceed 4m barrels per day. Other processes include separation sand and water from the crude and condensing of propane and butanes from the gas. Some of the gas is consumed on the platforms to provide electrical power.

In all these processes flow rate and pressure are the key parameters that have to be measured and controlled, although other mechanical and electrical quantities may be involved. Appropriate measuring devices send their data to a control room where, basically, comparison takes place with operator, instrument or computer-demanded values and correction signals sent outwards if the two do not match. These control signals will alter pump speeds or line chokes to restore the norm.

In many cases, however, the signals are still transmitted pneumatically for safety reasons (no sparks or heat are permissible) while their effects are simply monitored electronically to produce operational and production data.

But as modern electronics become smaller, cheaper, more reliable and the voltage levels reduced, complete electronic control will tend to predominate.

Many offshore systems are based on process control systems for land-based chemical and petrochemical plants and most of the UK and international process control companies are involved in supplying equipment ranging from valves, transducers and actuators to complex computer and screen-based control systems. The list includes such names as Brown Boveri Kent, Ferranti, Foxboro, Honeywell, Rosemount and Sytron Taylor.

In the latest designs the traditional meters and controllers can be done away with altogether and the values of temperature, pressure and so on displayed as dynamic bar charts or selective listings and graphics on colour television monitors. The operator can look at any sector of the plant, adjust set points (controlled values) and in some cases bring up displays which show the trends of parameters over previous hours or days. Alarm conditions appear on the screen as flashing red markers next to the offending reading, accompanied by audible warnings.

In most systems of this kind a computer situated centrally undertakes all the control and data manipulation but a trend developing in land-based systems—distributed control—will probably also become accepted on offshore platforms too.

It arises mainly from the availability of cheap and reliable computing/storage power in integrated circuit form and has the advantage that dedicated control of each process loop (circuit) is feasible, giving increased integrity. Honeywell has claimed the first order for such a system, for a double platform in the Beatrice Field. Sometimes platform systems have to exchange data over radio links, send data to the shore or measure the input of various producers into a single pipeline. Indeed, the pipeline

itself may be monitored in order to detect fractures the moment they occur—the technique is either to detect the resulting pressure wave or continuously monitor mass flow into the line at the platform and compare it with that at the terminal.

Computers are being applied to many such problems: for example there is one which data links many terminals and platforms to monitor logistical support—from helicopter bookings to consumables supplies.

Clearly safety is a vital matter on a production platform in view of the products, but so is production continuity, particularly since 5m of crude per day might be produced. False warnings and shut-downs are unwelcome.

Monitor

Once again electronics are brought to bear and companies such as G. P. Elliott have devised ultra-reliable microcomputer based system, now coming into use, that will constantly monitor gas detectors and other hazard sensors (excess pressure or temperature, for example) and if necessary initiate extinguisher systems and shut down the whole platform.

Such risks are not entirely remote. There is a notorious case

on record from the Gulf of Mexico in which massive gas bubbles suddenly appeared under a platform and ignited within seconds, the heat causing the structure to collapse.

But to avoid false alarms completely three microprocessors are used in a "two out of three" electronic voting system.

The use of computer systems even extends to shore-based simulations of platform control rooms on which operators can be trained without being let loose on the real thing. Another British company, Redifon, has devised such a system in which any kind of hazard or situation can be presented to the trainee. Future challenges for electronic control will be even more demanding. Probably much greater integration of the kinds of system mentioned in this article will be called for, for example, ideas such as the deep-sea production system come to fruition.

In this, there is no platform at all and the hardware is in five interconnected very robust modules on the sea bed. Fully automatic operation has been mooted, but seems unlikely. But even with minimal manning the instrumentation, control, safety and reliability problems will be considerable, to say the least.

Geoffrey Charlish

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كتاب النحل

THE ARTS

Cinema

Going for a song

by NIGEL ANDREWS

All That Jazz (X)
Odeon Haymarket
Breaking Glass (AA) ABC
Shaftesbury Avenue
The Wishing Tree
Camden Plaza
Italy Before Neo-Realism
National Film Theatre

When is a musical not a musical? Can we dub All That Jazz and Breaking Glass musicals? Packed with tunes and toe-stomping though they are, they're like most of today's song-and-dance movies: films about music-making rather than films that use music as an extra string on the expressive bow. Modern "musicals" fight shy of unreality. Occasionally odd pre-historic creatures cross the skyline, like *Grease*, memories of an age when characters really did burst into song in the middle of a stroll through a park bench or a stroll through a rainy Hollywood street. But mostly, today's warblers and high-kickers need a stage or a recording studio to make merry with music. Both this week's vehicles give a brave tug at the abackles of modern convention, but they remain music films stubbornly and incestuously bound up with the music business itself.

All That Jazz is the braver of the two. This wobbly, likeable extravaganza, which shared the Grand Prix at Cannes, is delirium tremens at 24 frames a second, not so much Afternoon

of a Faun as Morning-After. Bob Fosse's medical musical leaps like a sledgehammer from live theatre to operating theatre, in its quasi-autobiographical tale of a fast-living Broadway producer-choreographer (played by Roy Scheider) pushing himself on to greater and greater heights and finally to a heart attack. But even when our hero is wheeled into hospital you can't stop the music. Post-operational Scheider becomes the life and soul of intensive care and the film, burgeoning ever more into fantasy, clusters gargantuan production numbers around his bed as dancing arteries and capering corpuses in human shape come together to hymn the joys of open-heart surgery and sing the body electric.

So it's like balcony Hollywood, you say? The days of old when musicals were bold? Not quite. It's more like an over-sensitized dog-on-a-leash making frantically nostalgic lunges toward the old Free-Form but tied willy-nilly to its post-'60s post. The result, though schizophrenic in its blend of *Chorus Line* realism and Bushy Berkeley baroque, is emphatically a creature of the late '70s-early '80s. For one thing, the last-act razzmatazz is almost mockingly hyperbolized. The surreal doesn't grow out of the real, as in the old days of *As You Like It*, it's stuck on in great chunks of applied artifice. For another director Fosse, who won his cinematic spurs with *Coburnet*, is too fascinated with

the very staginess, with the machinery-whir and the processes of music-making, to be too into oiling the transitions between narrative and production number.

The rabble-rousing rococo of the second half may be too much for some tastes—it certainly was for mine—but the pre-cardiac section of the film, when the autobiographical sketch of Scheider-Fosse is wreathed as if from the backstage billows of cigarette smoke, is as lively a resubbing of musical-comedy conventions as America has lately produced. Snap-crackle editing choreographs the images themselves into a dance as slices of the hero's private life—with his aspiring dancer daughter, his sundry mistresses, his tobacco and Dexedrine—are rhythmically intercut with rehearsal vignettes and backstage fun-poking at the weathervane reactions of his latest show's backers. ("We've just lost a family audience," murmurs one hacker to another, through clenched teeth, as a brassy Broadway production number gives way to a sweaty erotic ballet in best Fosse tradition.)

All That Jazz is like an overgrown workshop sketch funded by a millionaire. It hasn't lost its chaotic shape but it has grown some fascinating and opulently endowed encrustations. *Breaking Glass* is British, bald and basic by comparison: the straight-up and-down tale of a punk rock

singer's rise and fall, given high-voltage vigour by Hazel O'Connor's performance in the lead role. Miss O'Connor wears a dead-white floor-polish for hair and black nail-polish on her hands and feet. As a singer she is punk's answer to Shirley Bassey, a melodious road-drill turning showbiz vibrato into a seismic mechanised judder. Add to that her wondrously weird on-stage costumes—all in oniric silver and white and culminating in something that looks lent her by the robot from *Metro*polis—and what you have is Britain's premiere chanciness of the Machine Age.

But the film built round this star-in-the-making isn't worthy of her. Like All That Jazz it's a post-lapsarian musical, either pegging its numbers to stage or recording studio reality or gear-changing into fantasy with a deliberately voluble scrunch. There is cheerful mileage in the early chronicle of Miss O'Connor's rise and the assembling of her back-up group: with manic cockney manager Phil Daniels (of *Photographia*) running around as if someone has lit his blue touch-paper and retired, and with some deathless one-liners from the auditioning hopefuls. "I'm always late for auditions," says a lanky double-bass. "This is my 63rd."

But soon we're wading knee-deep into the hackneyed marshes of rags-to-riches disillusionment, as fame becomes too much for Miss O'Connor or rather goes straight to her phlegm-mopped head—and the nervous industry conspirators to package, simplify and exploit her talent. This road is as worn and well-rutted as Pompeii. *Stardust* has driven down it before and so have countless other British music films. What *Breaking Glass* does offer, amid the sound of clanking clichés, is a few raw rude notes from the first British singer ever in a punk sound as if it can house other emotions than mere finger-in-aggro. Now will someone give Miss O'Connor the reward of a good movie script?

A car crash, leaving me in one piece but my car in several, prevented me from seeing the Press show for *The Wishing Tree*. Notes and memories remain, however, from a first viewing at the London Film Festival two years ago, when this Russian film from Georgia scooped widespread interest.

See it and savour it instantly. It's a rawly visionary tapestry of village life, set around 1900 and cross-weaving eight or nine different stories as it builds the bewitching picture of a community time-warped in primitivism and yet struggling to emerge into the 20th century.

Like a naive painter, director Tengiz Abuladze abandons the ordered hierarchy of perspective for a higgledy-piggledy pantheism of style which allows every character to claim his share of the story's foreground: from the lady in ragged Parisian clothing who has lost her beloved—a Miss Havisham of the wild—to the preacher prophesying a New Era, from the peasant searching for the title's talismanic "wishing tree" to the two ill-starred lovers, one a married girl whose adulterous romance leads to capture by the villagers and a cruel ad hoc martyrdom.

The film's ending, depicting their tragedy, has an unfurrowed power and pain that are like a village-pageant version of Mizoguchi's *Chikamatsu Monogatari*. Elsewhere in *The Wishing Tree* though the impact of the different stories is uneven, Abuladze sustains a sense of village life there are ever-potent undercurrents: of superstition, of passion, of rural eccentricities teetering on the brink of real madness. It's a jumbled tragicomedy, written as if by Gogol, painted as if by Douanier Rousseau. Catch it while you can at the Camden Plaza.

When you sip your next Martini, think of the National Film Theatre. For Martini and Rossi have sponsored a month-long retrospective of pre-war Italian cinema, to which all filmgoers should turn whose knowledge of that nation's movies starts with V for Victory and D for De Sica. Here you may sample Neo-realism's prophetic fifteen years of sound cinema: when art, wit, tactic and propaganda mingled and Mussolini wielded a big, but not too big, stick over the film industry. Laugh at the early exploits of Vittorio De Sica, as comic actor rather than director, sigh prophetically at the screen debuts of Alida Valli and Anna Magnani, and thrill to the scope and splendour of *Scipio Africano* (1937) which still has a fair claim to be considered the most spectacular film ever made.

Oxford Playhouse

The Workshop

by GARRY O'CONNOR

The Workshop, an autobiographical play written by Jean Claude Grumberg, and translated from the French by Tom Kempinski, hinges on a slight story. Set in Paris in a men's tailoring workshop, it traces the lives of the five women employed there, as well as the Jewish boss and his wife, Madame Helene, from 1945, the year of the liberation until 1952. Apart from the day-to-day irritations and incidents, intensified by the atmosphere of post-war France, the frail labour conditions, and horrific stories of displacement and deportation—for after a short while it emerges that it is almost more of a Jewish play than a French one—the action gradually focuses on the plight of Mme. Simone, mother of two boys, whose husband, a Romanian Jew, and stateless person, has not been returned since he was taken in 1943.

Simone, a stoical, reticent woman, spends her spare time trying to find news of her missing husband, while the others variously contribute to her plight, or react to the progress she has made. Finally, four years after beginning, she obtains a death certificate, which given the bureaucratic chaos, is no mean feat and which entitles her to a pension. This provokes an impassioned outburst from Mme. Helene, who does not want the Jewish dead forgotten (the certificate makes no mention of the cause of death).

Leon, the boss, is all for forgetting the past, but his wife cannot. Simone decides not to remarry, and devotes herself to working and caring for her sons until she falls ill; inconclusively the play is brought to a close with the appearance of one son dressed in a girl's overcoat sent as a gift from the U.S.

As this is primarily a study of character, and the interaction of people at work, one does not miss any strong conclusion. Grumberg writes warmly, with a good eye for the details of tailoring, able to make the most of the humour and atmosphere the profession supplies in quick and lively sections. The character of Leon, who explains just before the interval how he survived the war and tried to save the life of a German soldier, is richly explosive. Each of the ten scenes is introduced by Brechtian titles on a screen: this



Lynn Farleigh

Leonard Burt

contradicts the arousal of sympathy, which is Grumberg's first intention, though it provides breaks which emphasise the careful craftsmanship.

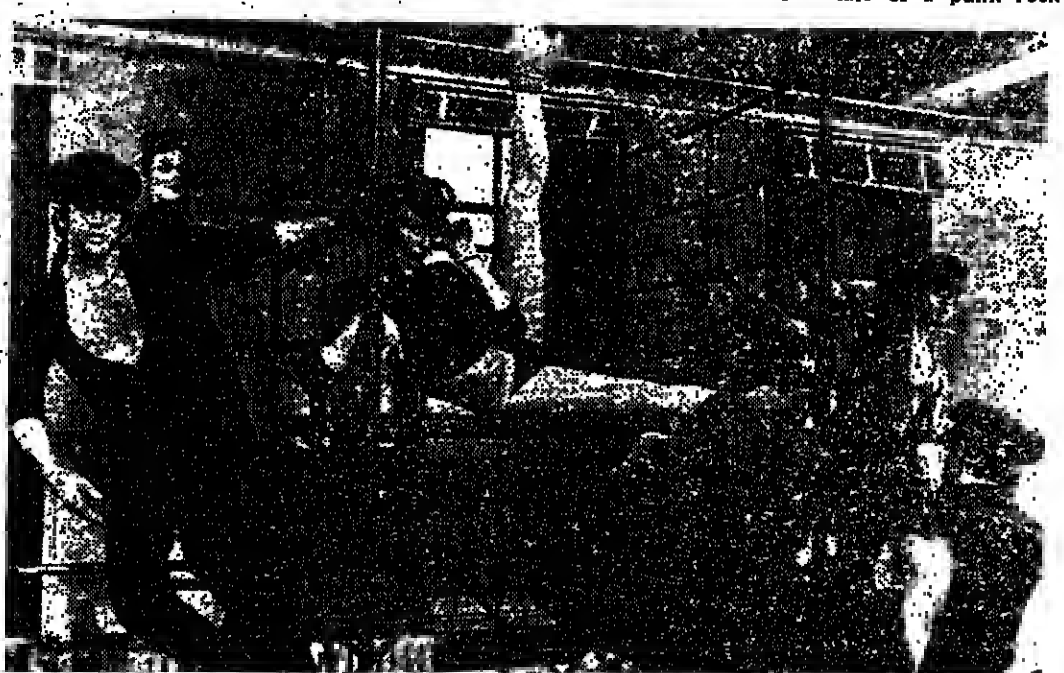
Lynn Farleigh as Simone has little stated with which to establish the progress of inner grief over her loss, and brings dignity and understanding to

passages of moving silence, Caroline Hutchison, as the tense, black figure of Mme. Helene, and Jennifer Piercy and Georgina Anderson, as the two middle-aged seamstresses, Sandy Ratcliff as the party hostess, Brenda Cavendish as Marie and John Levitt as the presser, create together a vivid work picture, with sharp individual features.

Cinema development at the ICA

The Institute of Contemporary Arts has announced plans for converting its existing cinema into a facility which will reflect developing interest in independent film-making, video, Super-8 and television work and which will also house Britain's first

public-access video library—ICA Cinema and ICA Cinematheque. At the same time two major funding bodies have announced grants to the project. The British Film Institute is to give £60,000 and the Greater London Council is making a capital grant of £20,000.



Scene from 'All That Jazz'

EDINBURGH FESTIVAL

The Tarnished Phoenix/Mime

by MICHAEL COVENEY

Saint Cecilia's Hall is the most gentle of Edinburgh venues. Tea and biscuits, ladies in hats, personal appearances by big stars on their best behaviour. The *Tarnished Phoenix*, even though it is a compilation of poems and letters by D. H. Lawrence, is just the thing. Ian McKellen, who has recently completed a performance of Lawrence on film, comes on clean-shaven and casually dressed.

After a studiously coy few words of introduction, he is joined by Sheila Allen, a late replacement for Janet Suzman as Frieda.

At least Roger Pringle's loose-leaf reading avoids the patronising class-room manner of Richard Hoggart's recent Lawrence play. This is done by consigning bard information to the minimum and allowing Lawrence and Frieda to speak for themselves. It is, of necessity, a partial view of their relationship, concentrating on the endless travel and what a great genius he was. The crux seems to come in a letter written from Italy in 1914, where Lawrence offers a blueprint for marital bliss that sends a shiver down my spine. Don't worry about your career or paying the mortgage; just learn to live with your partner's estimation of you. That sounds all right if you happen to be a saint or a genius.

The poems were beautifully read by both actors, Miss Allen, finding much bounce and variation for "How beastly the bourgeois is" and Mr. McKellen bawling down the hatches in

"Sname" and "There are No Gods". For the benefit of John Knox, we had "Conundrums," the poem written after the suppression of Lady Chatterley's *Lover* about sex being as long as you don't talk about it. Few shock waves, though. The ladies in hats were still smiling.

The Moving Picture Mime Shows at the Moray House Cinema are much improved since I first saw them. On Wednesday afternoon they performed a new piece, *City Limits*

that was a vivid and semi street scene for the three tumbling, clucking young boys.

It needs cutting by 15 minutes, but there is a really clever interweaving of four narrative mimes. We see the world going to work, shoving and pushing on the tube, clocking in, attending hoard meetings, running messages. At home, a mother pursues a slipper infant along a high-rise ledge. One sequence in particular stands out, a traffic snarl up with the screeching and hunking done in a vocal travesty of the Blue Danube Waltz.

Also back from last year are the Savannas Synchronists, Kid Dawson's Onward Band from Newcastle and George Pennman's Glasgow band with vocalists Fiona Duncan. This year also sees bands from London: The New Era Jazz Band and the quintet of clarinetist Sammy Rimington.

Edinburgh's own bands feature strongly and include the Old Bailey Jazz Advocates and the Society Synchronists who played at last year's traditional jazz festival in Sacramento, California.

The Festival opens on August 24 at 4 p.m. with a marching parade down Princes Street led by Andrew Hall's Society Band.

Elizabeth Hall

Summer Music

Wednesday night's recital in the Summer Music series restored Rosalyn Tureck, the harpsichordist following her piano concert the previous night. She alternates keyboards just as she pleases, but can always put forward ample justification for her choice. She occupied the first half of the concert in further performances of Bach (on whom she concentrates exclusively)—a selection from the *Well-Tempered Clavier* and the *Italian Concerto*. The remainder of the programme was given over, with an inappropriateness richly in the spirit of current South Bank proceedings, in Messiaen's *Quartet*; for the end of time.

Miss Tureck is not so absolutely irreplaceable a harpsichordist as she is a pianist. The previous night's sublime communications were not approached, her style of performance and the mental penetration of the music did not on Wednesday have that earlier distinctiveness. What before had been boldness, even a special masculinity of spirit, persuasively vindicating itself, melting easily into a lyrical line, now often struck one as just a harsh, capricious, over-assertive tempo approximated much more to conventional levels; a conventional quota of finger slips occurred too in contrast to Tuesday. Miss Tureck retained her individual practice of playing all repeats, but did that with customary sensitivity.

The C minor Prelude and fugue (Book 2) yielded much in proportion as it received an effectively slow pacing. The registral changing and forthrightness of her *Italian Concerto* first movement (the two came memorably together at the recapitulation) and the intense elucidation of the *contando* slow movement were impressive and enjoyable.

Miss Tureck remains one of the best harpsichordists of the day. But nothing on Wednesday rivalled the transfiguration of a moment in the adagio of the piano concerto when her two hands, perfectly attuned, seemed to be travelling to separate spheres.

In the Messiaen *Quartet* the problem was, as usual, to contain celestial aspiration. Stephen Kate's cello solo *L'Orphée* *L'Éternité de Jésus* rightly bodied the utterance by indulging its Messiaen-like, Faure-like sentimentality though Emanuel Ax's accompaniment achieved a contrasting incisiveness.

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Radio 3

Rubbra's new symphony

In a single movement lasting barely a quarter of an hour, Edmund Rubbra's eleventh symphony is the only BBC commission to receive its first performance at this year's Proms. It was the central work in Wednesday's concert by the BBC Northern Symphony Orchestra, the conductor was Nicholas Cleghorn.

At a time when the faithful band of Rubbra admirers is beginning to get something of his large output on record, the BBC's support was well-judged. Those who follow the composer as much because he preserves the conservative values of tonal music as for the intrinsic quality of his work are unlikely to have been disappointed by the new symphony.

There are the familiar virtues of unexceptionable taste and easily generated lyricism, of melodies that seem able to sustain themselves indefinitely, and the equally familiar distrust of show, an introspection that refuses even to clothe the music in attractive orchestral colours.

Rubbra's recent music has tended to dwell upon the properties of particular intervals. Here the basis is the fifth, announced in the opening horn call and dominating every melody and accompaniment thereafter. Everything in the symphony grows out of those opening bars. There is a flow-fast-flow plan, the faster music a barely perceptible quickening

of the basic pulse and more obvious for the sharper focus of its rhythms; the return of the slower music is foreshortened, and the symphony seems to end prematurely, before its themes have apparently reached a definitive shape. Apart from an elegantly turned oboe solo and some evocative, born writing—evocative, that is, of other composers, for Rubbra's lack of individuality remains a decisive weakness—the orchestration is purely functional. The symphony is recognisably English, and equally recognisably a product (just) of the 20th century; apart from those elementary classifications, its character would be hard to place.

ANDREW CLEMENTS

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Friday August 22 1980

Reality keeps breaking in

THE ESTIMATES published yesterday for public borrowing in the second quarter of 1980 fall into what is now becoming a pattern of the early years of the present Government: policy decrees one outcome, but reality tends to deliver the opposite. Just as we have recently discovered that despite a declared policy of tight restraint for the growth of the broadly defined money supply, its growth has probably accelerated sharply, we now discover that public sector borrowing is clearly likely to accelerate too.

Window dressing

It may be tempting to attribute the rise to the recession, which reduces revenue and increases expenditure, but there is precious little evidence to support this view in the monthly figures for central government finance which have already appeared. The recession, and especially the very sharp fall in UK energy demand, may help to explain disappointing figures for the nationalised industries, but no more.

The battle of the Channel

AMID ALL your sympathy for the travellers who got stuck on both sides of the Channel by the French fishermen's blockade, spare a thought for M. Joel Le Theule, the Minister of Transport. Left in almost lonely glory in Paris while most other Ministers are on holiday, he has been caught squarely in a welter of conflicting interests.

The fishermen have asked for compensation for the ever-rising cost of their diesel fuel, subsidised though it already is. M. Barre, determined to administer the free market medicine, wants the rising cost of oil to percolate through to the last consumer. On top of that there is an old fashioned industrial dispute about manning levels.

Martyrs

In Britain, public opinion has been treated to a revival of the spirit of the Hundred Years' War, though the martyr this time is not a peasant girl from Lorraine, but a tripper from Manchester or where you will. As a good Gaulist, M. Le Theule should be able to shrug off British woes.

But can he and M. Barre be detached about the hopes of re-election next year of their President, M. Valéry Giscard d'Estaing? The fishermen's cause has been espoused by the Communist-led trade union organisation; other unions have joined in, so that the Left has been grabbing a few headlines. Whether France really cares during the August break is another question.

None of this is to say that the dispute should be taken lightly. Industrial strife carried out on the backs of others never is attractive. M. Le Theule knows: he was the Minister in charge two years ago when French air traffic controllers ruined many a holidaymaker's and business traveller's flight.

The fishermen's fight is a double one. In the area of Boulogne and Etaples there is a straightforward labour dispute. The Government has offered increased financial help to re-equip the fleet, providing the owners make economies.

often, in their first year in office, they have willed the ends without bothering their heads about the means, like a general declaring that his strategy is simply to win the battle. The difficulty is most readily seen in defence, where Government plans called simultaneously for expansion and for economies, and something had to give. It is perhaps more tellingly illustrated in local authority borrowing. It is Conservative council which have been unable to meet Ministerial demand for economy—not for lack of goodwill, but because the demands paid inadequate heed to the problems of authorities which were already running lean budgets.

Excessive

As with the money supply, the Government will probably feel compelled to treat bad figures as so much water under the bridge. The policy of rectifying the nationalised industry balance through large price rises has already attracted much criticism. It would be still harder politically to raise taxes or slash programmes while unemployment soars.

Ministers will no doubt comfort themselves with the thought that whatever the figures say, their policies are producing results. Sterling is strong, inflation is beginning to abate, wage bargaining is becoming more realistic, and investment remains surprisingly strong.

They should not be allowed this illusion. The present state of the economy is not the result of the Government's declared policies, but of what has actually occurred—a combination of excessive public sector financial needs (which are the total of borrowing plus asset sales) with some monetary constraint. High interest rates have protected the exchange rate and, as a result, protected some of the real value of excessive wage increases. High real wages are raising unemployment and promoting investment—not in expansion, but in labour displacement.

These developments are not what the Government intended, and are not healthy. There may be good reasons for avoiding disruptive lurches now, but for the longer term policy changes are needed—the policy changes which will enable the government to attain in reality the objectives it has laid down for itself.

SIX weeks ago, at mid-eight on July 4, UK petrol prices dropped by around 2p a gallon—to the great delight, but almost total bafflement of the average British motorist.

Only a year earlier he had been forced to wait in line for hours outside his local garage, praying that the pumps would not run dry before he reached them while simultaneously cursing the unprecedented heights that petrol prices had attained.

Between the middle of February and the beginning of July last year, average pump prices soared from 84p to £1.18 for a gallon of four star—an increase of over 40 per cent.

In the U.S. the panic over petrol supplies reached such proportions that some gasoline-hungry motorists chose to ride shotgun down the long queues that formed outside the pumps—latterday highwaymen demanding: "Petrol or your life."

Yet today the famine that faced consumers appears to have become a feast. Not only is petrol available in cut-price abundance all over Western Europe, but the market for other oil products is also weakening rapidly.

Mr. Peter Baxendell, chairman of Shell Transport and Trading, said yesterday that the world oil industry's stocks now stand at 5bn barrels—enough to last for 100 days and the highest level ever reached.

Demand and prices have fallen so sharply that major oil companies like Shell, British Petroleum and Esso now openly admit they are finding it cheaper to buy products on the Rotterdam spot market than to make them by processing crude through their own refineries.

The abrupt turn-around seems at first sight to lack both rhyme and reason—for there has been no major drop in world crude prices. But the most pressing question in the minds of most oil product customers—whether they be motorists buying petrol or industrialists purchasing fuel oil to power their plants—is whether or not the good times are going to last.

The evidence suggests that any heart-felt signs of relief on that part of consumers could well be premature. The chances

SUE CAMERON looks at the present softening of world prices for oil and oil products, and questions whether the good times can last.

are that the pendulum will swing the other way with perverse speed.

Mr. Baxendell said that the reason the major oil companies were continuing to stock up on crude—in spite of the fall in demand for oil products—was that they did not want to "prejudice" their supply contracts with producing countries in case there might be another shortage. If they ended their contracts with the producing countries now—or cut back the amount of oil they were buying on contract—they might not be able to boost supplies later when they needed to do so.

Just as turmoil in Iran precipitated last year's oil crisis, so could action later this year by Middle East crude producers—namely Saudi Arabia—lead to a firming up of the oil products market this winter.

Mothballed plants

There are a number of reasons for the present softness of the market but chief among them is the recession that is taking its toll in both Europe and the U.S. Demand for products such as fuel oil has dropped away as manufacturers have been forced to reduce output, close plants and pare down their distribution networks. Meanwhile individuals have also been cutting down on petrol and heating oil.

BP Oil and Shell both say that overall demand for oil products in the UK has dropped by around 15 per cent compared with last year. The picture is much the same on the Continent except that demand there has fallen at a slightly lower rate.

Most of the major oil companies have now mothballed

some of their older refining capacity in Europe and other plants are being treated to lengthy maintenance programmes. Industry experts believe that even when business starts to pick up again, some of the less economic refineries will stay shut.

But some products have been hit harder by reduced demand and falling prices than others. Jet fuel, for example, appears to be holding its own reasonably well and even on the comparatively cheap spot market prices have dropped by only some \$10 a tonne during the last three months to \$323 to \$327 a tonne.

● Petrol demand is holding up well. ● Gas oil, used chiefly for heating, has fallen rather more sharply. At the start of the year the weighted average price of gas oil was taking in both spot and contract prices—within the European Economic Community—was around \$312 a tonne. Today it can be bought for as little as \$270 a tonne on the spot market.

● Fuel oil has suffered the biggest drop in demand and in price of all the oil products. It is estimated that demand has fallen by around 30 per cent in most European countries and there is little hope of it picking up substantially in either the short or the longer term.

● Naphtha, the most important of the petrochemical industry's raw materials, has fallen even further than fuel oil and seems set to continue its downward spiral. The spot price of naphtha is now about \$100 a tonne lower than at the start of the year and the contract price is down by around \$35 to \$40 a tonne.

The fact that fuel oil and naphtha—both used primarily by industry—have borne greater drops in price and demand than

some other oil products suggests that the recession is very largely responsible for the present state of the market.

But it is argued that conservation has also played an important part in bringing down consumption.

The Iranian revolution last year certainly led to a flight from oil and oil products and to redoubled efforts to save energy in all its forms. The drive to cut energy consumption has had some notable successes—such as the estimated 14 per cent reduction in U.S. oil imports and attempts to conserve energy in West have undoubtedly been one of the factors leading to the present drop in demand for oil products.

But the oil industry is extremely sceptical about the claims made by some of the "Save-it" campaigners. A senior executive in one major oil company commented dryly that while the U.S. may have reduced its oil imports, it also increased its domestic crude output during the last year.

In France, West Germany and the UK a number of power stations have begun to use coal instead of fuel oil and this has clearly had a bearing on the dramatic drop in fuel oil demand.

Plunging prices may be good news for consumers—but they are a real headache for the oil industry. Top executives in the major oil companies say tersely that they are used to peaks and troughs in their business. Oil they say has always been the balancing fuel—the one that consumers use to make up any shortfalls in supplies of gas or coal.

One oil products manager said that last year's fears over security of oil supplies had encouraged many commercial and industrial consumers to increase their stocks. In 1979 most companies probably had enough fuel-oil in stock to keep them going for three or four weeks. Today they keep six, eight or even 10 weeks' supply on hand.

What the big oil companies would like to know is the rate at which their industrial and commercial customers are now running down their fuel oil

stocks. The oil crisis of 1979 is fading from people's minds while the recession is bringing cash flow problems. The prudence engendered by the revolution in Iran could be thrown to the winds in the face of the present economic downturn. But the oil majors are uncertain as to how companies are reacting to these conflicting pressures.

They are much more confident about one of the reasons for the current drop in oil product prices. Lower prices are clearly a result of reduced demand—but the oil companies believe there is another factor in the equation.

Oil companies bypassed

They say that since last year many of the big oil-producing countries have been selling more of their crude through government-to-government deals instead of offering it to the oil companies. Shell estimates that the amount of crude going through government-to-government deals has risen by 3m barrels a day in the past 18 months. The ailers in these deals tend not to charge the premiums on their crude prices that they demand when selling to the oil majors. One country that has been selling more of its crude through government-to-government deals is Saudi Arabia, which is not only the biggest of the Middle East producers but also a pricing moderate. Saudi crude prices are still around \$4 a barrel lower than most comparable Middle Eastern oils.

The major oil companies maintain that some of this comparatively cheap crude has been refined and has then found its way on to the spot market. Hence the unrealistically low prices being charged for some oil products at Rotterdam—or so the majors would argue. They argue that spot prices have fallen rather faster than contract prices.

Yet however attractive spot market prices may be, the quantity of oil and oil products passing through Rotterdam is comparatively tiny—between 5 per cent and 10 per cent at a generous estimate. If spot

prices fall so low that the oil majors themselves find it cheaper to buy there than to refine their own crude—which is what is now happening—then sooner or later Rotterdam will be unable to meet their needs. And spot prices will start to rise again.

There are plenty of events on the cards that would all result in a return to higher prices—on the spot market and on contract—for oil products. Oil experts point out that the market is probably much tighter at present than it seems—partly because of the distorting influence of the relatively tiny spot market and its prices.

It would therefore take only a small hiccup in Middle East politics to send a shudder through the entire market. Once oil companies and oil producers got wind of another crude shortage, prices would rise fast.

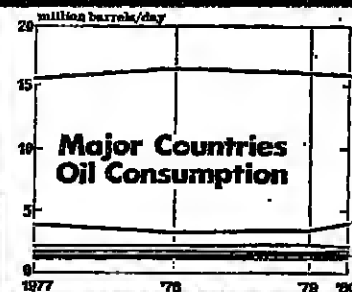
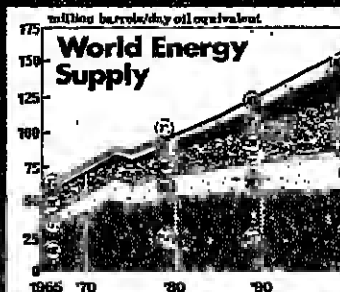
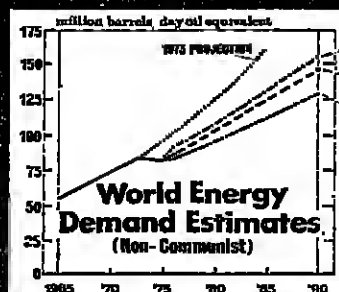
There is also the prospect of Saudi Arabia raising its oil price, or else cutting back its production. The kingdom is maintaining its present high crude output of 9.5m barrels a day in an attempt to influence the pricing hawks within the Organisation of Petroleum Exporting Countries. When the Saudi authorities would like to see is a more cohesive and moderate pricing structure within OPEC.

But at the next OPEC strategy meeting—in November—Saudi Arabia may have to make some concessions to reach its objective. The most likely possibilities are a reduction in crude output or a rise in the current Saudi market price from \$28 a barrel to nearer \$33 a barrel. Either would be enough to firm up prices in the oil products market.

This would not imply a return to the kind of regular and dramatic increase in oil product prices that hit the West last year. But it would put an end to the present downward slide in the prices of gas oil, naphtha and petrol.

There is little chance that oil and oil products prices in the West will follow the path of Icarus who flew so high his waxen wings melted in the sun, so that he fell, crashing back to earth.

Factors in the world oil price



MEN AND MATTERS

Keeping home fires burning

Though faint by conventional standards, the glimmer of light emanating from the Bruno Electrical heater factory in Warwick shines like a beacon through the blackness enveloping the Midlands.

This modest little company, turning over around £1m a year on domestic heaters, is in the unusual position of having almost too much work. "Yes," says managing director Edith Lowy, "we are going full out. People have cancelled their holidays and the staff have volunteered to work through the August Bank Holiday to keep things moving."

Almost apologetically, she explains that Bruno had to close its order books a fortnight ago, and with winter coming on and a bumper shipment of 67,000 electric fires to be sent to the Middle East, she does not expect to open them again until the end of November.

Mrs. Lowy, a trained institutional cook, "on the right side of 50" is far too busy to ponder deeply on the train of events which brought her such success when all around is gloom. Since taking over the business on the death of her first husband in the mid-sixties she has retooled the works and opened up her main export trade with the Middle East.

Now running two shifts a day with her regular staff of 35—plus another 15 draffees from the Job Centre—she is wholly absorbed with the task of ensuring that her company's performance continues to match the promises she makes to win trade in tough Middle Eastern markets.

"Our advantage," she boasts with not a hint of doing-down the opposition, "is our reliability. We keep our promises on delivery dates." And she can afford to be gracious towards those who in the early days hampered her export drive. "I have never had any trouble dealing with the people out there, but when I first applied



"The good news is, there is bad news for the Kremlin somewhere... the bad news is we can't hear it!"

Sporran partner

I am happy to say that the "working breakfast" is not yet a regular feature of British business life. For those of us from time to time dragged in to such an encounter, normally with an American visitor, it comes as something of a shock to the system.

Pity, then, my man to the festival city of Edinburgh, huddled behind the porridge and kippers yesterday striving bravely to keep pace with the energetic analysis of the American economy propounded at sunrise by Malcolm Forbes, editor and publisher of the immodestly named business magazine.

Forbes is, of course, not short of pages in which to expound his Weltanschauung, so I will not risk duplication by going into too much detail here. Suffice it to say that his words feel like the sweet smell of haggis upon the ears of the Scottish Development Agency,

Puffing away

Come dragons, paper tigers, or any other weird and wonderful banking beasties... true blue Barclays is undaunted. Vice-chairman Deryk Weyer yesterday jauntily shrugged off all suggestions that the new retail banking services of Red Dragon Securities and other parvenus might disrupt the calm of the British High Street.

"We are prepared to meet the competition head on," he boomed. "I'm a little cynical of all these red dragons and green dragons and others because I think they appear only when the interest rates are high."

"But they will disappear soon enough. As soon as the interest rates go down, so will they. I've seen them come and go in the past, and they'll come and go again."

Change of key

From my eyrie high in the vaulting of Bracken House, I have often in recent weeks peered down at the offices of neighbouring banker Singer and Friedlander. In those moments, I muse upon which happy suitor will bear it out of the arms of American insurance giant Marsh

Thumbs down

"Hullo, old man. How's married life?" "Can't complain... the wife is adamant about that."

Marsh wants to sell Singer; and while Singer enjoyed a happy relationship with Bowring foreign parentage would put it beyond the pale of the elite Accepting Houses Committee through which the Bank of England bestows its blessing upon the choicest merchant banks.

Since the simple observation of visitors to Singer failed to yield any leads, I was unable to contain my curiosity any longer. What I asked deputy chairman Peter Brackfield, is happening?

"There are," he replied, "negotiations in progress, and we are hopeful that before long we shall have new owners." The six months which the AHC gave Singer to find new parents or go out into the cold end shortly after the New Year, but Brackfield is now optimistic that a deal will be done by Christmas.

The interregnum has had "no perceptible effect on the bank's business," Brackfield told me. But where a resolution would be welcomed among the bank's staff, who are understandably beginning to feel a little nervous about what will happen.

Brackfield would not be drawn into revealing just who had shown interest in the bank, but those more assiduous than I at observing the Cannon Street portals suggest that several foreign banks are hardening up proposals. It seems, however, that Singer itself would prefer a British owner, since that is a sine qua non for AHC membership. Nor, happily, is there yet any sign that "Marsh Mac" would force Singer into a marriage of convenience.

WHSMITH Nationwide

SWINDON

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SWINDON

Observer

Britain bounces back in Nigeria

LAST WEDNESDAY Mr. Nigel Salmon, managing director of Guinness of Nigeria, was marooned in his brewery in a Lagos suburb as a rain-induced lake swelled in the surrounding streets for the 13th time this year.

"We survive on the assumption that things will get better," he said in a meeting that had become, perforce, a telephone interview.

Mr. Salmon was being too gloomy. In fact, most British companies in Nigeria, including Guinness, have adapted remarkably well in the past few years to rapidly changing conditions in black Africa's richest country, which is also Britain's most important export market outside Europe and North America.

Despite increasing competition, especially from Japanese, French and German companies, the British still have the largest share, more than 20 per cent, of a market that offers the magic combination of huge oil revenues, estimated at \$27bn this year, and a large population, approximately 80m, to spend them.

The potential rewards are obviously very high and, surprisingly, the financial risks need not be that great. But the headaches involved in doing business in Nigeria are intimidating. In addition to bad drainage, businesses have to contend with irregular electricity service, poor telecommunications, an unusually fickle approach to trading regulations by Government and astronomical operating costs.

One banker estimated the cost of establishing a simple base—telephone, office and flat, five years' rent in advance, please—at \$600,000. A long-established manufacturer in Nigeria lost its chief accountant last month because a competitor offered to double his salary to \$38,000 and throw in a house, car and driver.

The British face the additional hazard of being punished

occasionally for former colonial associations. Last year, the Government expelled and removed its deposits from the local Barclays Bank associate and excluded British companies from bidding on big federal contracts—all because of Southern Africa.

The past two years would have been trying anyway. Trading was choked off by a wide-ranging ban on imports and swingeing public spending cuts. Meanwhile, a determined military Government was forcing most foreign companies to sell a majority of the shares of their local affiliates to Nigerians at bargain basement prices and then not allowing them to repatriate the meagre proceeds.

Since the return to civilian rule eight months ago, trading conditions have improved and the British have bounced back with exports in the first half of 1980 returning to the more normal level of \$552m compared with a disastrous \$240.8m in the first half of 1979.

Most British businessmen in Nigeria really do expect things will get better still under a new Government that seems more eager to accommodate foreign investors than its military predecessor. And for those with patience and agility, newcomers as well as established companies there may once again be great opportunities for profit.

Take, for example, the surprisingly promising case of Leyland Vehicles, which won a bid four years ago to become one of four so-called progressive truck manufacturers in Nigeria. The idea was that each would start out assembling imported knock-down kits and add progressively to local content. In return, they would be well protected from import competition.

Leyland played along with the new ownership policy, investing \$4.8m in its 40 per cent equity interest in the \$60m project. Most of the funds for the project come from

Ian Rodger, just back from Lagos, reports that British companies have adapted to Nigeria's rapidly changing conditions and still hold more than 20 per cent of the market.

low-cost local loans. In return for its small stake, Leyland will sell \$32m in kits from the UK this year and an estimated \$80m next year.

In the new scheme of things, foreign companies understandably look more and more for deals like this and less and less at the stated profits of what have become their Nigerian associate companies.

Indeed, stated profits are not much help after the Government has restricted dividend payments to 60 per cent of after-tax profit or 20 per cent of paid-up capital, whichever is larger. Dividend payments also face a 12.5 per cent withholding tax, rising probably to 25 per cent early next year, for payments abroad. On top of that, companies must then struggle to obtain central bank clearance to remit funds abroad, a process that can take more than a year.

Dividends can still be important in the few remaining sectors where the Government allows foreigners to hold up to 60 per cent of the equity, mainly companies in high technology industries.

One recent venture that falls into this category is a \$20m glass bottle factory in which Metal Box has a 55 per cent interest and Japan's Toyo Glass 5 per cent. The supplies of technology and the raw materials are obtained locally,

so MB's only source of revenue from the project is the dividend. Of course, it also protects its position in a fast-growing packaging market.

ME's equity investment was about \$3.7m and, after four years, the factory is beginning to produce reasonable profits, a little over \$3m on sales of \$20.6m in the year to March 31, 1980, and a £1m dividend was paid.

Adjusting to the new rules has been particularly challenging for the long-established coastal traders, among them Unilever's UAC of Nigeria, Lorrho's John Holt and Pateron's Zochonis.

UAC of Nigeria, which had become accustomed to making a 40 per cent return on capital, suddenly found pre-tax profit cut in half in the year to September 30, 1979. In the same period, John Holt (Nigeria) plunged from a pre-tax profit of \$5.7m to a \$5.8m loss. Pre-tax profit of Pateron Zochonis Industries (Nigeria) fell from \$8.8m to \$5.8m in the year ended May 31, 1979.

All three were hard hit by the import ban and recession in Nigeria but they have also found that their traditional business of importing finished goods is becoming less profitable because of a variety of Government-imposed barriers.

John Holt faced the added complication of changing its motor dealership from Ford to locally-assembled Volkswagens after imports were banned. In the process, it also lost its exclusive franchise because the Government wanted to sell Nigerians, rather than foreigners, in the motor distribution business.

Inchcape's associate in Nigeria, Bewac, which used to have the lucrative Land-Rover franchise exclusively, has been similarly affected, and is scrambling to diversify after two years of losses.

These companies have got the message that the Government

wants them to create more jobs and add more value through light manufacturing, and have moved quickly to comply.

Since the companies have only a 40 per cent interest in their Nigerian associates, the decision to invest profits in new projects rather than pay out bigger dividends (within Government guidelines) is usually an easy one. Moreover, bank borrowing rates are low and the banks, closely regulated by the Government, are eager to help.

As they move more into manufacturing, profits of the Nigerian associate companies will tend to depend more on the vagaries of Government tariff policy. The previous Government had an annoying tendency to remove vital tariff protection after using it to encourage industrial development. Many businessmen are disturbed by the current Government's tolerance of high levels of smuggling of consumer products.

Another factor is price control. Leyland delayed selling the output of its new Nigerian factory for nine months last year until the Government agreed to realistic prices for it. Although it is still unable to meet demand for its beer, Guinness profit will decline slightly this year because it was unable to get a price increase for two years. It was finally allowed 12½ per cent in June. The Government announced a few months ago that price controls would be removed but they remain in force because of a dispute between two government agencies on the implementation of new guidelines to replace them.

From the point of view of the British parent companies, the profit performance of these Nigerian associates is, of course, of less and less immediate concern. Their hope now is that they can make as much money exporting technology, management, raw materials and intermediates to Nigeria as they

SOME OF THE BRITISH COMPANIES ACTIVE IN NIGERIA:



used to make out of exporting and selling finished products. So far, this year, the Nigerian associates have shown some recovery in their profits, while the British parent companies have been reporting major improvement in Nigeria-related business.

Another way companies maintain performance in Nigeria is to remove from their main Nigerian trading associate those operations in which foreigners can still hold a 60 per cent interest.

Berec did this two years ago and, in the past year its manufacturing company, in which it has a 60 per cent interest, doubled its pre-tax profits to \$2.9m while the importing associate in which it has only a 40 per cent interest, suffered a 40 per cent drop in profits to \$384,000.

While industrial companies should be able to adapt to new conditions in Nigeria, the outlook for foreign interests in Nigerian banks and insurance companies is less certain.

After accepting loss of equity control to Nigerians over the past three years, the major foreign banks, including Standard Chartered and Barclays, were shocked last autumn when the Government suddenly put its own nominees in the top executive positions. How long, they wonder, until the banks are totally nationalised? How long, industrial executives worry, until the Government starts appointing their executive directors as well?

Foreign companies with interests in insurance companies in Nigeria, such as Guardian Rural Exchange, Commercial Union, Phoenix and the Royal, have also had to give up equity control. The Nigerian associates have been ordered to direct more of their reinsurance business through Nigerian companies rather than through their London parents.

The new civilian Government is aware that new foreign investment has dried up as a result of the upheavals of the past few years and ministers

have been saying recently that they want to encourage foreign investment again.

In its first budget last April, the Government seemed to be showing some proof of its good intentions with proposals to lower personal income taxes, raise permitted dividend payouts and increase the amounts Nigerian companies can spend abroad on technical fees.

With oil revenues running high again, the Government is gradually allowing the economy to expand and most businessmen expect favourable trading conditions for some time to come.

"We foresee cash starting to circulate at quite a high rate by November and December," Mr. Peter Best, deputy chairman of John Holt, said, "and we expect to have at least two good years."

However, the problems of high costs, poor services and bureaucracy will remain. As the floodbound Mr. Salmon put it: "Unless you have a firm base, you can get discouraged."

The price of gas

From the Director, National Federation of Clay Industries.

Sir,—The letter (August 20) from Mr. J. H. Smith, deputy chairman, British Gas Corporation contains what appears to be sound sense if one really believes that in industries such as heavy clay and refractories could possibly risk wasting gas. At the prices which industry has been charged in recent years and the energy content of production costs averaging 25 to 30 per cent, and strong market resistance to any price increase from customers, how can it?

Of course it is difficult to establish precise figures for gas prices on the Continent, but Department of Energy must now surely have enough evidence to support our worries about increasing imports based on cheaper EEC energy prices.

What is wrong is that, for years, the industrial gas consumer has been subsidising the domestic consumer in this country, whereas the reverse has been applied to other EEC countries. The BGC annual report shows that the increased consumption in UK last year was largely on the part of the domestic market. This is because gas is so much cheaper than other fuels, whereas, as the Prime Minister said on July 17: "On the whole, gas prices to industry have provided the profit to the British gas industry."

Those of us who are so concerned for the immediate survival of large and important sections of industry ask only that we should be able to hold our competitive position. We agree that Continental prices will catch up one day and we are aware of the Russian, Algerian and Dutch demands quoted by Mr. Smith. If Government policy would give us a plateau while they do, we shall have what we want.

R. S. Redmond,
Weston House, West Bar Green,
Sheffield, Yorks.

High energy costs

From the Director General, British Independent Steel Producers Association.

Sir,—The deputy chairman of British Gas Corporation (August 20) properly endorses the "reasonable and unemotional approach" on energy costs in an earlier letter from Mr. W. Waldegrave, MP, but regrettably also supports the contention that no objective evidence on this matter is available. It also supports, at least by implication, the argument put by Mr. Waldegrave (and oft repeated by junior Ministers) that "it is essential to talk in averages"; talk, by all means, but what business or industry can live by them?

Detailed submission by the steel industry (public and private) on the energy pricing question were put to Cabinet Ministers on July 31 and were noted in your columns on the following Monday. Copies of these have now been sent to Mr. Smith and Mr. Waldegrave, and will I hope deal with some of the points they make. I would be grateful, however, if you would allow me to deal with the two specific points on which they are (I submit) both in error.

There exists a very comprehensive study, prepared by the EEC in Brussels, on prices of natural gas to all categories of consumers in all member countries, which is hitherto unpub-

Letters to the Editor

lished, but available to government departments. It is of very recent date, and makes every respectable intellectual attempt to compare like with like, breaking down so-called "industrial" users into several categories, and even ironing out current disparities by the use of an index of "standard purchasing power." This study supports the case we make.

It shows UK energy intensive industrial user to be worse off in terms of current gas contracts than any of our main European competitors, even though the UK has indigenous resources greater than any other EEC member, and lands them solely in the UK. (This latter point would be relevant if we were actually charged lower gas prices, since the question of "discrimination" against other customers could arise, but as it happens, our current plea is that we should at least not be penalised by our own Government-directed policy of using gas as a tax collector.)

Perhaps the departments of state concerned will in due course pronounce on this study, and maybe it will not persuade them; but let it not be thought that such data is not to hand. Now as to the use of "averages," this is the greatest fallacy in the current argument, lent credence by Ministers and energy suppliers. Old contracts are certainly cheaper, here and overseas, and new contracts dearer, and there is a patchwork of each kind. We maintain that current and future prices are adverse to UK bulk users vis-à-vis those with whom we are exhorted to compete. But the worst of these "average" concepts is that which lumps together within "industry," concerns to whom energy is little more than 1 per cent of total cost, with those to whom this percentage can be more like twenty five! What kind of animal is the average between "one horse, one rabbit," and what kind of policy can be constructed if such thinking persists?

A. H. Mortimer,
5, Cromwell Road, SW7.

Mortgage funds

From the Secretary General, Building Societies Association.

Sir,—On August 18, Peter Riddell wrote that the Government "was considering ways of raising more money directly from the large, and rapidly growing, personal savings market. One idea under discussion was making the 'granny bonds' scheme available to everyone." On August 20 your leader writer welcomed this news and suggested that a drive for personal savings would enable the Government to reduce its gilt issues by £2bn-£3bn. This, he said, "should bring substantial relief to industry at the cost of a little disappointment for house owners." I would like to examine the proposition and what the "little disappointment" could mean in practical terms.

In 1979, the net receipts of building societies totalled £3.3bn and during 1980 they have been running at about the same level. The bulk of the money attracted away by the Government would be likely to come from societies so we can see the effect if investors switched funds of the magnitude suggested.

Building societies have a heavy responsibility in the housing field which they cannot escape. Because of the Rent

Acts, the supply of houses in the privately rented sector has dried up so people are forced to become (and remain) owner-occupiers. If the supply of mortgage funds also dried up the whole housing market would start to grind to a halt. House prices might fall in the short term but first-time buyers would be frustrated, existing owners immobilised in their homes and the building industry would run down even faster than it is at the present time.

The natural reaction of societies, if their funds are being attracted away, is to increase the rate offered to investors, and therefore the rate charged to borrowers, but there is no way in which they can compete with inflation-proof Government media. Societies were offered the SAYE index-linked scheme but had to turn it down because of the cost.

All deposit-taking institutions will be disturbed by the thought that the Government may decide to increase its unfair competition in the savings fields, particularly a Government which is pledged to bring the rate of inflation down. Offering these palliatives at the expense of private institutions would look very much like condoning the disease.

Norman Griggs,
34, Park Street,
Moyfair, W1

Savers and the house market

From the Economic Adviser, The House-Builders Federation.

Sir,—Your leader "Savers and the house market" (August 20) leaves a number of vaguely defined but potentially important ideas hanging in the air, which need to be argued through to a more clear-cut, logical conclusion.

You imply that any attempt by the Government to introduce ways of attracting a much higher flow of personal savings will end up being stifled at birth by the political priority given to building societies and the need for a low mortgage rate. You further argue that there is a "massive distortion" in favour of the building societies and the housing market, and presumably against the national savings movement or any similar vehicle which the Government might use to tap the personal sector directly; and that a more successful direct tapping by Government of this personal sector will reduce the constraints which the public sector borrowing requirement places upon the institutions and through which it crowds out funding for industry.

I am not aware of any serious objections which have been raised in the past to the introduction of aggressive but fair attacks on the personal sector from the national savings movement. True, there are always rumblings when with every upward twist of the screw on minimum lending rate the Government announces yet a further juicy, tax-free issue of National Savings Certificates; but this has not prevented their introduction in the past and the objections are related more to the equity and accountability of the Government, in its "judge and prosecutor" role as both tax-gatherer and commercial operator, being able to set the rules on the tax liability of its own savings products, rather than to the existence of such competition in itself.

It is only natural, therefore, that the non-Government opera-

tors in the personal savings market should watch vigilantly, at the news that the Government is working on even better and bolder schemes, for any "thin end of the wedge" which would exploit the Government's privileged role to compete for funds unfairly and with hidden subsidies.

Which, of course, brings us to the second of your arguments, namely the "massive distortions" in favour of building societies—of which, I suppose, we must expect to hear more in the wake of the Wilson Committee et al. What precisely are you referring to here? The lower rate of corporation tax for building societies as non-profit-making mutual institutions—this is peanuts in terms of its effect upon competitiveness and hardly relevant to the national savings movement anyway (clearing banks, yes, but you were not discussing them). The composite tax rate—surely you are not still pursuing that horn of old hare which Inland Revenue staffing considerations alone will not wear, and again hardly relevant to the national savings movement? Mortgage interest tax relief—oh well, there we do have the \$54,000 issue which you do not specify, or discuss. If you are worried about the distortive effect upon the relative attraction to the societies' savings products caused by this reduction in the borrower's price sensitivity, then say so and tell us what you would like to see changed.

But are you seriously implying that the borrower of the national savings movement's funds, ie, the Government, is seriously disadvantaged by the tax relief afforded to the borrower of the building society's funds, ie, the house purchaser? Again, the clearing banks might have a shout here (I do not happen to agree with it, though) but surely not the national savings movement?

And now to this seductive argument, so suddenly popular these days, that by tapping the personal sector direct the Government can somehow ease the "crowding out" pressure from the gilt market and release institutional funds for industry, and so on. I fail to understand, in my simple and non-technical way, how such a switch in the focus of Government borrowing from long to short, from wholesale to retail, from institutions to individuals, will make one halfpenny worth of difference to the underlying flows of funds between the personal sector which is the ultimate originator of all these funds with its net financial surplus, and the Government and corporate sectors. Indeed, read the excellent Stow report from those "massively distorted" fellows at the Building Societies Association, for an insight (looked at from the reverse viewpoint) of whether the societies should switch from individuals to institutions, from retail to wholesale (funding) into why you cannot alter the fundamentals in the market with a few clever new gimmicks.

There is only so much available from the personal sector and, however you tap it, any increase in demand must raise the price unless matched by a real increase in its supply, and that in turn will only come from a real change both in incomes and in preferences between consumption and savings rather than preferences between different savings products.

Jamie Stevenson,
82, New Cavendish Street, W1

GENERAL
UK: Mass meeting of workers at Hoover's Cambsuash factory to consider proposed reduced wages.

Fourth International Exhibition of Motoring Textiles (textile art) opens at British Crafts Centre, Earls Court, W2 (until October 4).

SPORT
Boxing: WBC Super Bantamweight Championship, Las Vegas—Wilfredo Gomez (Puerto Rico, holder) v Derrick Holmes (U.S.).

Rugby: Goodwood, Newmarket.

Today's Events

Cricket: Prudential Trophy—England v Australia, Edgbaston. Showjumping: Lambert and Butler, Jumps Derby International, Hickstead (until August 25).

OFFICIAL STATISTICS
Department of Transport publishes new vehicle registrations for July.

COMPANY MEETINGS
Ariel Industries, Omoia Works.

Mill Road, Rugby, 12. Brownlee, City Showmills, Craigshall Road, Port Dundee, Glasgow, 12. Lennons, Abbotts Well Hotel, Croydon Road, Chester, 12. McLeod Russell, Victoria House, Vernon Place, WC, 12. Newmas, Dragonara Hotel, Redcliffe Way, Bristol, 12. Hopkissons, George Hotel, St. George's Square, Huddersfield, 12.

COMPANY RESULTS
Final dividends: Second, Alliance Trust.

Interim dividends: AI Industrial Products, Alliance Trust. Beoford Concrete Machinery, Pentland Industries, Ward Holdings. Interim figures: Hallam Steigh and Cheston. MUSIC, London

Metropolitan Police Band plays in Tower Place, ECA, noon.

Cello recital by John Franca, St. Lawrence Jewry, 1.00 pm.

Canada's Famous Hart House Chorus: programme of folk-songs, contemporary Canadian music, negro spirituals and traditional choral repertoire, St. Michael's Cornhill, 5.30 pm.

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Companies and Markets

UK COMPANY NEWS

Barclays Bank rises £33m and lifts interim to 9.25p

Barclays Bank yesterday revealed an increase of 13.5 per cent in group pre-tax profit to £279.1m for the first six months of 1980. Although this is an improvement against £246m in the comparable period last year, it represents a £43m pre-tax decline from the peak second half of 1979.

The interim rise compares favourably with two of Barclays' three clearing bank competitors. NatWest and Westminster earnings were up only 4 per cent before taxes and Midland's profits dropped by 10 per cent in recent interim announcements. Only Lloyds, the smallest of the big four, did better with a 18 per cent midway increase.

Barclays' interim dividend is the most generous of the four major clearing banks. Shareholders are to receive 9.25p per £1 ordinary stock, a rise of 34.4 per cent over last year's interim dividend (adjusted for a one-for-five scrip issue). NatWest and Lloyds put their interim dividends up by 20 per cent and Midland maintained its payout.

Sir Anthony Tuke, the group chairman, said yesterday that the slight fall in profits against the second half of last year was mainly due to three factors. Overheads (especially staff costs) had increased, funds had been shifted from current account to seven-day deposit and

margins were squeezed and finally, provision for bad debts was significantly higher.

Bad debt provisions rose from £26.2m in the first half of 1979 to £64.4m this year. Of this increase, the charge for specific provisions almost doubled to £40.2m while that for general provisions nearly tripled to £24.2m. Barclays said that the rise in general provisions, mostly loans and overdrafts, was "purely on the over side of the balance sheet."

The charge for specific provisions was mainly related to manufacturing, construction and service industries in the North and the Midlands, according to deputy chairman Mr. Deryk Weyer. He said this was "generally symptomatic of a depression."

The general provision figure brings the total to £171m in relation to total lendings which have now reached £23.5bn.

Barclays also added yesterday its hope that recent signs of some slowing down in the rate of inflation in the UK would be followed by a reduction in interest rates. It was acknowledged that this would bring with it a fall in clearing bank profits, but the Barclays credit operation and Mercantile Credit

operation would benefit. The bank confirmed that the number of Barclaycard holders had

risen to around 51m, compared with around 5m a year ago. Meanwhile, Barclays said that more and more customers were making use of overdraft facilities. Overall utilisation of overdrafts at around 62 per cent compared with around 50 per cent at the start of the first half of 1980.

In addition, customers were becoming more interest conscious. Some 34 per cent of Barclays' funds were now held in seven-day deposit accounts, up from 31 per cent last year. Current accounts, however, had fallen from 39 to 36 per cent of total assets.

In contrast to the UK Barclays International turned in 40 per cent higher pre-tax profits. This was due to an improvement in South Africa as well as better business in the U.S. and other areas.

On a current cost basis, Barclays' pre-tax profit was down 10 per cent at £145.9m. The group said this differed from the historic pre-tax level mainly because of a current cost adjustment of £139.5m for monetary working capital. The interim dividend becomes uncovered on a current cost basis.

Barclays' shares yesterday moved 5p upward after the interim figures were unveiled. They closed at 425p.

Lex Back Page

HIGHLIGHTS

Lex considers the interim figures from Royal Dutch/Shell and Barclays Bank. After currency and stock items Shell's second-quarter figures show an upturn of 18 per cent to £440m after tax. Like other clearers a large bad debt charge is evident at Barclays so that, while profits are ahead of the same period last year, they have eased back against the previous six months. Lex also looks at the deal whereby UDS will be getting out of mail order. Finally, Distillers' annual report was posted to shareholders yesterday and Lex comments on the group's outlook. Other major news items of the day include the liquidation of Northern Offshore, a support services company, and a £2m rights issue from ML Holdings. On the bid scene there was news of a break-up in the discussions between RCA and Associated Communications.

Distillers expects modest improvement

THE current year cannot be viewed as one of great promise and will produce more than a modest improvement on last year's results, warns Mr. J. R. Cater, chairman of The Distillers Company, in his statement to shareholders accompanying the annual report and accounts.

Sales of Scotch whisky and gin have shown no unexpected weakness in the first quarter, he says, adding that stock levels in most world markets were high at the outset and the general recessionary influence of high interest rates and pressure on disposable incomes has inevitably encouraged a policy of destocking.

As reported on July 18, group pre-tax profits rose to £193.8m in the year to March 31, compared with £180.1m and the dividend was lifted by 1p to 10.75p net with a final of 7.75p.

Shareholders' funds amounted to £347.5m (£738.9m) and cash and other liquid funds other than government securities £24.1m (£68.8m). There were long-term loans of £104.5m (£105.4m) and bank loans and overdrafts of £11.1m (£49.5m).

On a current cost basis, attributable profits are reduced to £65.7m (£87.5m) compared with a historic £148.3m (£120m). Although the dividend is adequately covered by the GCA profit, the increase in shareholder funds shows in the GCA balance sheet falls short of the estimated amount required to compensate for the effect of general inflation, states Mr. Cater.

He adds, though, that the shortfall has been slightly exaggerated by the influence of VAT on the retail price index. Mr. Cater again voices the board's strong reservations regarding the monetary working capital and gearing adjustments made by S&A 18, which it considers inconsistent with other items in the profit and loss account.

Whisky shipments to the U.S. fell slightly during the year, at

though the group's share of a smaller market was increased.

Price increases have made Scotch whisky still more expensive to the U.S. consumer than North American spirits, says the chairman, and prospects for growth in this market are not encouraging.

He welcomes the Government's attempts to secure payment of refunds on cereals grown in the Common Market and used in the production of whisky exported outside the EEC. The group's share of the refunds due, which are of the order of £42.44m for the past year and £20m for the current year, will make a useful contribution to liquid resources.

Meeting, Edinburgh, September 18 at 12.15 pm.

Lex, Back Page

Setback for Utd. Glass

AFTER £2.5m redundancy and other termination costs, and increased interest charges of £1.2m against £848,000, taxable surplus of United Glass—jointly owned by the Distillers Co. and Oxo-Celotils of U.S.—slumped from £3.35m to £14,000 for the 28 weeks ended June 14, 1980. Turnover expanded by £16.35m to £95.29m.

The directors state that the under utilisation of facilities will continue to depress results during the rest of the current year and profit for the period will be substantially lower than in 1979—pre-tax figure for that year was £10.92m.

After a firm start, demand for most of the group's products weakened and there are no signs of any early improvement, the directors say. As a result output was reduced which entailed a number of redundancies.

Dale Electric £2m down despite second-half rally

ALTHOUGH showing considerable improvement in the second half, Dale Electric International, manufacturer of electric generating sets, reports a drop of £2m to £1.3m in pre-tax profits for the full year to April 27, 1980. In the first half the figures had turned from £1.91m to £434,000. Turnover for the full year was also down, falling from £25.1m to £24.2m.

Despite its disappointing year, the board says the forward view on both sales and profits is good. Commenting on the poor figures Mr. Leonard Dale, the chairman, says the group has had a tough, challenging year. Market conditions, mainly overseas, have been the most difficult for a decade. He adds: "We are not easily beaten and during the year we made changes to adapt to new market place needs and meet international competition head on."

The first rewards of these changes can now be seen. The second half profits were double those of the first half. The current year's sales intake of Dale generating sets is 90 per cent greater than last year's at week 14.

He says the group's new products, the Dale 8000 generating set system, the Houchie fixed alternator, are all doing well. The new Leeds factory, designed to enable the group to upmarket into high voltage generating sets, comes on stream in October.

After tax substantially lower at £668,237 (£1.68m), stated earnings per £10 share are 4.03p (£12.34p) and the final dividend

DIVIDENDS ANNOUNCED					
Assd. British Eng.	Current payment	Date of payment	Corre. div. year	Total last year	Total year
Barclays Bank	0.13†	Oct. 20	0.13	—	15.42*
T. F. Braine	1.5	Oct. 6	1.5	—	4.5
Broadstone Inv.	2.2	Oct. 6	2	—	7.38†
F. Copson	1.2	—	1.2	—	1
Dale Electric Int'l.	2.75	—	2.75	4.13	4.13
First Scot. Amer. Tr. Int.	1.3	Oct. 1	1.3	—	3.2
A. and J. Geller	2.2	Oct. 13	2.1	3.7	3.5
Herrburger Brooks	2.52	Oct. 10	2.1	2.52	2.1
Inv. Trust Guernsey Int.	4	Nov. 3	3.5	1	10
Malayan Tin	4	Oct. 7	3.25	4	3.25
Moran Tea	3	Oct. 2	5	8	10
Noble and Lund	0.18	—	0.16	—	0.42
R. and J. Pullman	3.97†	—	3.21*	5.44	4.52*
Reliance Knitwear	1.56	—	2.15	3.1	3.69
J. Saville Gordon	2.4	Oct. 31	1.94	2.83	2.44
Westwood Davies	—	—	—	—	2.5
Wm. Whittingham Int.	2.25	Nov. 3	2	—	6

Dividends shown pence per share or otherwise stated.

* Equivalent after allowing for scrip issue.

† Equivalent after allowing for scrip issue.

Dale has a certain edge over competitors in that it makes custom-made generating sets which sell at premium prices. In addition, generating sets only account for around 55 per cent of group turnover as all the others are in one basket—aircraft ground equipment is a significant sector. Interest charges at Dale were up to £758,000 last year from £495,000 but the group's gearing is now around 30 per cent since its dividend is down below £3m against last year's £3.5m. The dividend has been maintained, yielding 61 per cent at 94p, up 2p and the fully taxed p/e comes out to 19.4—a level which hardly makes the shares look a bargain.

comment

Dale Electric has been through a very difficult period this past year and while the pre-tax decline of 60.5 per cent is a poor showing, it is not as bad as that of others involved in the manufacture of generating sets. Petrow, for example, scored a pre-tax loss of £900,000 in its last year-end results. The dropping away of key markets in Iran, Nigeria, Iraq and Turkey was a serious blow, but Dale now says things are re-opening to the first two. Recent orders from Nigeria and Iraq come to around £3.5m.

comment

Beloved by strong housebuilding margins, and an unusually temperate winter, development profits at William Whittingham are up by 52 per cent. With further rental growth from the industrial property portfolio and quite an acceptable return from colour processing in what had

been the traditional loss making half, trading profits are ahead by two-thirds. Debt servicing costs, however, have risen sharply thanks to the increased cost of replacement land purchases and further warehouse investment. Moreover trading profits are unlikely to be so buoyant in the second half. The group believes the housing market will pick up quite quickly, perhaps by the turn of the calendar year, but if silver prices are now far more acceptable to the photographic business, the processing market is increasingly competitive and promotional costs are rising rapidly. Yet, given that a mainstream tax liability will not arise until next year at the earliest, the shares are discounting much of the uncertainty. The fully taxed dividend p/e is 10.7, up 3p yesterday, and the sum of the dividends paid over the last 12 months yields 7.6 per cent.

ML Holdings calling for £2m

A £2M RIGHTS ISSUE is proposed by ML Holdings, the aviation and signalling equipment engineer, which earlier this month announced a 23 per cent rise in profits to £1.03m for the year ended last March.

The issue, which is underwritten by stockbrokers Sheppards and Chase, is on the basis of one new share for every three held at 240p each, to the market ML shares rose 37p to 355p.

Giving their reasons for the issue the directors underline the group's recent progress which has produced an increase in turnover from £12.2m to £19.8m in the last two years, mainly reflecting expansion in the defence business. This sector has continued to grow in the first quarter of the current year.

Production facilities at Slough have been, and will continue to be, increased by the acquisition of new plant and machinery, and a start will be made on re-equipping the ML Engineering (Plymouth) factory to provide extra capacity for its defence and aircraft industry work.

The company has also announced its involvement in the JP233 airfield attack weapon system currently under development for the UK and U.S. governments. ML Holdings will have a substantial part of the development of weapons dispenser for the project.

Initially the rights proceeds will be used to reduce bank indebtedness.

The directors say that they intend to at least maintain the dividend at 7p per share on the enlarged capital in the current year.

Deals in the new shares start on Tuesday, September 16, subject to shareholders approving an increase in the capital at the annual meeting on September 18.

The annual report and accounts are expected to be posted to shareholders today.

comment

When shareholders catch sight of ML's latest accounts they are likely to be preoccupied with a

sharp deterioration in the housing position. In March, 1979, ML was showing overdrafts of £400,000, debenture stocks and mortgages of £332,000 and cash of £330,000. Income gearing in the year was not heavy with pre-tax profits of £283,549 after interest costs of £220,394. ML has not yet revealed its interest charges for the last financial year, but the pointer to its current debt level can be found in the statement that the proceeds will be used to "reduce bank indebtedness."

Exactly why short-term debt has risen so swiftly to over £2m is not obvious, but the cause is probably a combination of factors, an increase in defence work, fewer orders with forward payments, some capital expenditure and a general building up of working capital requirements.

A 37p rise, where the fully taxed p/e is 18, seems a rather perverse reaction to the rights issue and the ex-rights yield is only some 3 per cent. The rating is asking for a lot from ML this year—perhaps too much.

comment

When shareholders catch sight of ML's latest accounts they are likely to be preoccupied with a



Royal Dutch/Shell Group of Companies

Results for First Half 1980

The net income of the Royal Dutch/Shell Group of Companies for the second quarter 1980 was £680 million, compared with £710 million for the corresponding period last year. The comparison between the two quarters was significantly affected by the First-In-First-Out (FIFO) method of inventory valuation used by most Shell companies and by currency translation and conversion gains. Adjusting for these two factors, net income for the quarter was some 15% higher than in the second quarter 1979. The increase in underlying earnings was mainly the result of the contribution from oil and gas production operations, offset to some extent by a marked fall in the earnings of the chemicals business outside North America.

Net income for the second quarter 1980 and the first half 1980 compared with the corresponding periods of 1979 was as follows:

	Second Quarter		First Half	
	1980	1979	1980	1979
Net income before currency translation effects	590	653	1,378	1,204
Net currency translation gains on inventories sold and on monetary items	90	57	20	124
Net income for the period	680	710	1,398	1,328

	SECOND QUARTER		FIRST HALF	
	1980	1979	1980	1979
Revenues				
Sales proceeds	9,901	8,263	19,961	16,181
Less Sales taxes, excise duties and similar levies	1,815	1,655	3,521	3,243
Other revenues	8,086	8,808	16,440	12,938
Share of earnings of associated companies	148	182	300	366
Interest income	84	79	168	149
	8,490	7,019	17,312	13,771
Costs and expenses				
Purchases and operating expenses	5,903	4,650	12,038	8,159
Selling, general and administrative expenses	438	498	1,022	1,058
Exploration	112	84	205	163
Research and development	53	46	98	92
Depreciation, depletion and amortization	263	208	527	414
Interest expense	90	83	214	169
Taxation on income	829	679	1,850	1,287
Income applicable to minority interests	122	61	180	101
	7,810	6,309	15,914	12,443
Net income for the period	680	710	1,398	1,328

Accounting policies for first half 1980 are unchanged from those set out in the Royal Dutch and Shell Transport 1979 Annual Reports (pages 42 and 43), except that the Group has capitalized interest incurred on capital projects of material amount. The effect of this change was to reduce interest expense by £80 million for the second quarter and £116 million for the half year and to increase net income, after taking account of taxation and minority interests, by £32 million for the second quarter and £49 million for the half year. In addition, there has been a change in classification whereby the Group share of earnings (after tax) of the oil production joint ventures is included in share of earnings of associated companies. Prior to January 1, 1980, the Group share of earnings (before tax) was deducted from purchased oil and the Group share of tax was included in taxation on income.

* Parent company share therein:

	per Ordinary Share			
	1980	1979	1980	1979
Royal Dutch	N.F.	14-00	13-80	28-30
US dollar equivalents	8	7-24	7-14	14-65

(based on 134,018,522 shares of N.F.20 outstanding at June 30, 1980)

Shell Transport	pence	24-21	25-27	49-74	47-24
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(based on 1,104,834,414 shares of 25p outstanding at June 30, 1980)

New York Share equivalents	\$	2-29	2-39	4-70	4-46
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(one New York Share = four 25p Shares)

* For illustrative purposes, to establish the division of income between Royal Dutch and Shell Transport, the percentages of net income applicable to the parent companies for the year 1979 has been used: Royal Dutch 60.7%; Shell Transport 39.3% (see 1979 Annual Reports, page 47—Notes 2 and 3 to the Financial Statements of the Royal Dutch/Shell Group of Companies).

Royal Dutch/Shell Transport shares are shown for convenience as translations at the respective underlying rates of exchange at the end-June 1980 rates, which were: \$1 = N.F.1.932; £1 = \$2.36.

Reported net income for the second quarter and first half 1980 includes, respectively, some £160 million and £470 million attributable to the First-In-First-Out method of inventory accounting rather than a method which matches more closely the current cost of supplies with current revenues. This compares with some £280 million in the second quarter 1979 and £415 million in the first half 1979.

Capital expenditure for the half year rose by 35% over the corresponding period last year to a level of £1,325 million and this, together with an increase in working capital requirements of some £900 million, has been financed from Group resources.

Shell Oil Company of the United States reported earnings of US\$407 million, an increase of 47% over the second quarter last year. The improvement was mainly the result of the strong performance of its exploration and production segment. The earnings of the oil products segment also showed an improvement over the corresponding period last year. Shell Canada's earnings of Can\$92 million increased by 53% over the second quarter last year, mainly due to improved market conditions for oil products and chemicals.

Outside North America, oil and gas production operations continued to benefit from rising prices. Sales volumes of natural gas decreased by 9%; oil products sales declined 7%,

	SECOND QUARTER		FIRST HALF	
	1980	1979	1980	1979
Changes in financial position				
Funds provided				
Income, including minority share	802	771	1,558	1,429
Depreciation, depletion and amortization	263	208	527	414
Other funds from operations	127	177	370	318
Funds from operations	1,192	1,156	2,455	2,161
Other funds provided—net	59	35	85	55
	1,251	1,191	2,520	2,216
Funds applied				
Capital expenditure	739	543	1,325	981
Long-term debt: repayments, less new borrowings	15	39	62	50
Current assets less current liabilities	251	142	233	209
Dividends to parent companies	1	—	—	14
to minority interests	21	17	36	28
	1,261	1,191	2,520	2,216

	SECOND QUARTER		FIRST HALF	
	1980	1979	1980	1979
Capital expenditure by functions				
Oil rights and concessions	85	23	138	31
Exploration and production	330	251	633	448
Oil manufacturing	79	88	135	120
Tankers	9	12	22	30
Marketing	39	64	128	110
Coal	77	7	40	13
Chemicals manufacturing	93	98	184	189
Metals	8	4	15	8
Research	9	7	16	13
Other	9	7	17	18
	739	543	1,325	981
by geographical areas				
Europe	301	217	542	381
Rest of Eastern Hemisphere	105	87	206	155
USA	283	185	475	348
Canada	29	33	62	53
Rest of Western Hemisphere	12	9	18	18
Tankers	9	12	22	30
	739	543	1,325	981

Other financial data

Cash and short-term securities, June 30	1,945	2,638
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Distillers

Export turnover increases to £386 million

General observations on results Turnover and profits

Trading profit for the year increased from £173.9 million to £183.6 million but did not proportionally match the rise of 12.1% in total turnover excluding duty, demonstrating the adverse effect of a high rate of inflation on percentage margins. Special factors which depressed profits were the weakness of the dollar against the pound, which reduced the sterling value of dollar denominated sales, and the disruption caused by the strike at Scottish establishments in the autumn of 1979.

The volume of Scotch whisky exported by the Group was higher than in the previous year. The early months benefited from shipments delayed by the road haulage strike in January 1979 and performance in the quarter to 31st March 1980 was stimulated by sales to replenish stocks which had been heavily depleted during the autumn strike, and by sales made ahead of export price increases. Sales in the home market on the other hand declined. Gin sales made further progress in both home and export markets.

The Food Group's profits were reduced due to a disappointing performance by The Peerless Refining Company, but the Carbon Dioxide Company achieved profits in line with those of the previous year. 1979 was a difficult year for the associated company, United Glass, resulting in a fall of £2.1 million in our share of its profits. Exceptionally high market prices in the second half year encouraged the sale of 2.35 million BP shares giving rise to most of the surplus on realisation of investments.

Despite the increase in profit, the effect of stock appreciation relief has been to reduce the charge for taxation calculated in accordance with Statement of Standard Accounting Practice No 15. Extraordinary items include the surplus of £4.6 million on disposal of a leasehold interest in a property, formerly occupied by the Group but latterly sublet.

Dividends

The directors recommend a final dividend of 7.75p per share. An interim of 3.00p per share has already been paid making the distribution for the year 10.75p. Together with the associated tax credit the total distribution is equivalent to 15.35714p compared with 14.12047p per share last year.

Scotch whisky Production

Although work at a number of our distilleries was disrupted by a labour dispute in the autumn, operations were generally maintained at levels of output designed to provide balanced stocks for projected sales. The relationship between inventories and sales was kept under periodic review and despite the difficulties of long-term projection we consider the forward position to be fully covered by appropriate stocks.

Blending and bottling production was maintained at satisfactory levels for the first four months but during August was adversely affected by industrial action in support of the annual wage claim. The action culminated in a major strike at all but one of our plants, which lasted until the middle of October. Following settlement of the strike, exceptional efforts were made to recover the lost production.

At Kilnarnock good progress was maintained in the construction of a new blending plant for John Walker & Sons and further expenditure on closely related ancillary equipment has been authorised.

The construction of a new maltings and barley storage unit made good progress at Roseisle, Morayshire. The large whisky warehouse site at Bonnybridge was brought into operation and further accommodation is under construction.

At Carsebridge an extension to our by-product plant was commenced which will modernise the existing installation and result in significant improvements in thermal efficiency. The rapidly increasing cost of fuel makes such economies in energy usage at all distilleries of particular importance and they continue to be the subject of detailed studies.

Plans for a modern cooperage were approved and construction was commenced at Dundashill, conveniently sited to supply Port Dundas Distillery.

EEC

In my Statement two years ago, following the EEC Commission's ruling against our dual pricing system handed down in December 1977, I outlined in some detail the reasons for the withdrawal of Johnnie Walker Red Label and Haig Dimple from the UK market and for the increase, by significant amounts, in the prices of certain other brands including Black & White and Vat 69. At that time I indicated that we had lodged an Appeal against the ruling. That Appeal has now been concluded. An oral hearing took place in Luxembourg in January 1980 and the Advocate General gave his opinion on 12th March. He recommended that the Appeal be dismissed on the technical ground that we had failed properly to notify the dual price system but he considered that the Commission's ruling could not be upheld on the substantive issue, and that a form of dual price system could be justified. On 10th July the European Court delivered judgment. It followed the Advocate General's recommendation on the question of notification and rejected the Appeal but expressed no view on the substantive issue.

Last year I commented that the brands affected by our decision of December 1977 had benefited from an improved level of sales in continental EEC markets. In the year under review there was a continuing overall growth in these increasingly competitive markets, and both Johnnie Walker Red Label and Black & White achieved further significant gains in volume sales. We have, throughout the year, had to contend with difficulties created in certain other markets of the world by parallel export of our brands from the EEC. Although we strive to contain the problem, it has not proved possible to eliminate it and the flow of paralleled goods remained a matter of concern.

Over recent years there has been considerable growth in the level of sales of very low-priced Scotch whisky brands in the continental EEC markets. We are aware of the opportunities presented in this area but remain determined that these should only be exploited where they will show satisfactory profitability and where they can be met by products of the strict quality standards which are the basis of the longer-term success of our brands, and indeed of the industry.

Extracts from the statement by the Chairman, Mr. J. R. Cater, circulated with the Report and Accounts for the year ended 31st March, 1980.

Home sales

The inevitable consequence of the action we took in December 1977, following the EEC Commission's ruling, was a very sharp decline in our market share in the year ended 31st March 1979. The loss of a substantial volume of sales opened the door for a number of our competitors' brands to strengthen their position. The rate of decline was greatly reduced in the twelve months under review, although we have not matched the performance of the industry. The market remained a difficult one for our two major brands, Haig and White Horse, although the former attained sales well in excess of a million cases. Our policy remains one of maintaining a substantial presence in the UK while earning a satisfactory level of profit. Our two new brands, John Barr and The Buchanan Blend, continued to make some progress and the lower priced brand, The Claymore, again achieved a very significant increase in sales volume.

The figures published by HM Customs and Excise show that the industry's sales for the twelve months ended 31st March 1980 were marginally higher, by 1.7%, but the level achieved was inflated by buying in anticipation of the March Budget. That Budget imposed a substantial increase to excise duty on spirits relatively harsher than that applied to imported wine and moreover no concession was made in regard to a period of credit for the payment of duty. It is both disappointing and discouraging that the industry continues to be treated less favourably than other alcoholic beverage producers.

Export sales

Industry shipments of blended Scotch whisky increased during the year by 5.5% and were at a level of 97 million proof gallons. Shipments of bulk malt whisky moved ahead dramatically with an increase of 21% and reached the high level of 10.3 million proof gallons. We remain firm in our belief that the export of bulk malt whisky is damaging to the long-term interests of the Scotch whisky industry and we continue to take no part in this sector of the business. We are nevertheless concerned that the continuation and proliferation of this trade, actively encouraged in a number of important markets where Governments have raised tariff barriers on imports to support their large grain spirit interests, is severely restricting the potential for blended Scotch whisky.

The volume of Group exports of blended Scotch whisky resumed its upward trend but again fell slightly short of the industry's increase in percentage terms. The strike in the crucial autumn period certainly caused some irrecoverable loss of sales to direct indent customers but in the main our distributors did not run out of stocks and our brands remained available to the consumer during the Christmas season. A factor that must be considered in examining this further marginal loss in market share is the growing volume of sales of very low-priced brands exclusively in the hands of our competitors.

Your Company's shipments to the United States were slightly down. However, our market share increased. Following the price increase of 12% in January 1979, the strength of sterling vis-a-vis the dollar led us to make a further increase in the price of bottled-in-Scotland brands, which are invoiced in dollars. This was essential to the preservation of even modest profit margins in this important market. The further increases in prices, introduced in February of this year, have made Scotch whisky still more expensive to the consumer than North American spirits and the prospects for growth are not encouraging as the US recession bites more deeply. We are nevertheless strongly placed with Dewar's White Label and Walker's Red and Black Labels in the UK-bottled sector, and with Vat 69 Gold and Usher's Green Stripe in the domestically bottled area.

In other markets John Walker & Sons had a very successful year with its Red and Black Label brands, maintaining its position as the world's largest seller of Scotch whisky. Macdonald Greenlees also had a particularly good year and its de luxe brand, Old Parr, continued to prosper and expand in a number of important markets. The Group's other main brands, each with individual appeal in various countries, continued generally to sell well.

The developing markets of Latin America showed most progress. After a disappointing first six months our trade with Venezuela held up well and good increases in sales were achieved in Mexico and in a number of South American countries. In most of the African markets our trade was satisfactory although our endeavours in South Africa were hampered by import restrictions which were not eased until January. White Horse consolidated its premier position in the expanding Japanese market, in which Walker's brands and Old Parr also command strong sales, but distributors' marketing arrangements tended to be disrupted by parallel imports. In Australia sales have

not yet fully recovered from the 83% tax increase imposed in August 1978 but Johnnie Walker continued to lead in the market.

Gin

The new distillation complex at Wandsworth Distillery has been completed after delays caused by slow delivery of plant and adverse weather conditions. This additional facility for the production of grain spirit is being commissioned.

The absence of industrial disputes enabled the UK production of gin to be maintained at full capacity and output reached a record level. This high degree of activity was to some extent due to the need to replenish stock shortages, particularly in export markets, caused by labour problems last year, and world sales of Group brands of UK-produced gin showed a good increase.

In the home market, sales of Booth's and Gordon's began the year slowly but, with buying ahead of the Budget in June 1979 and again in March 1980, Gordon's achieved another record. In spite of an increasingly competitive market scene, it became necessary to raise the price of our brands of gin in July 1979 and again in February this year, to maintain profitability in the face of rising costs.

Exports of Group brands of gin from the UK during the year exceeded last year's record level but were inflated to some extent because distributors were rebuilding their depleted stocks following the industrial disputes of the previous year. Sales of Gordon's gin to the continental EEC markets in general, and to West Germany, Belgium and France in particular, did well. Group shipments to the West African territories and to Central and South America improved considerably. Tanqueray gin in the USA maintained a satisfactory rate of growth but, although future prospects remain encouraging, the prevailing recessionary conditions in that market are likely to limit further expansion in the short term.

Sales of Gordon's gin produced in the USA improved steadily but Booth's High & Dry, also manufactured there, failed to maintain earlier momentum. In the other markets in which our brands are produced locally, Gordon's remained strong in Spain and made progress in Venezuela and in the Caribbean Economic Community.

Vodka

Following the problems caused by the industrial disputes, the year started with a period of rebuilding reserves of Cossack for the future, and of restocking our customers. Sales in the home market, particularly in Northern Ireland, were higher.

In the USA sales of Gordon's vodka advanced quite strongly.

Other potable products

Cognac Hine again enjoyed an excellent year and achieved material increases, not only in sales volume and value, but also in overall profitability.

Fairly severe measures had to be initiated in Australia to achieve further economies. These involved the structural reorganisation of United Distillers Proprietary, which makes Australian whisky, gin and vodka, and Tolley, Scott & Tolley, makers of Australian brandy and wine. Both companies showed losses. The new measures are intended to achieve increased efficiency and to restore profitability.

Food group

The Yeast and Food Division made further progress as a major supplier of an expanding range of food products to the UK catering and baking industries and to other food manufacturers. Despite escalating costs and very competitive trading conditions sales volumes rose, assisted by the growth of the frozen food business on a national scale. Margins were generally maintained and an increase in overall profit was achieved.

The Peerless Refining Company had a very difficult and disappointing year. Output was restricted by production and labour problems during the first half and the improvement expected in the second six months did not materialise because of a fall in demand for oils and fats. These factors resulted in the first trading loss in the company's history.

Carbon dioxide

Sales of both carbon dioxide and engineering equipment were well maintained. Costs rose more rapidly than prices with the result that profits were slightly down.

United Glass

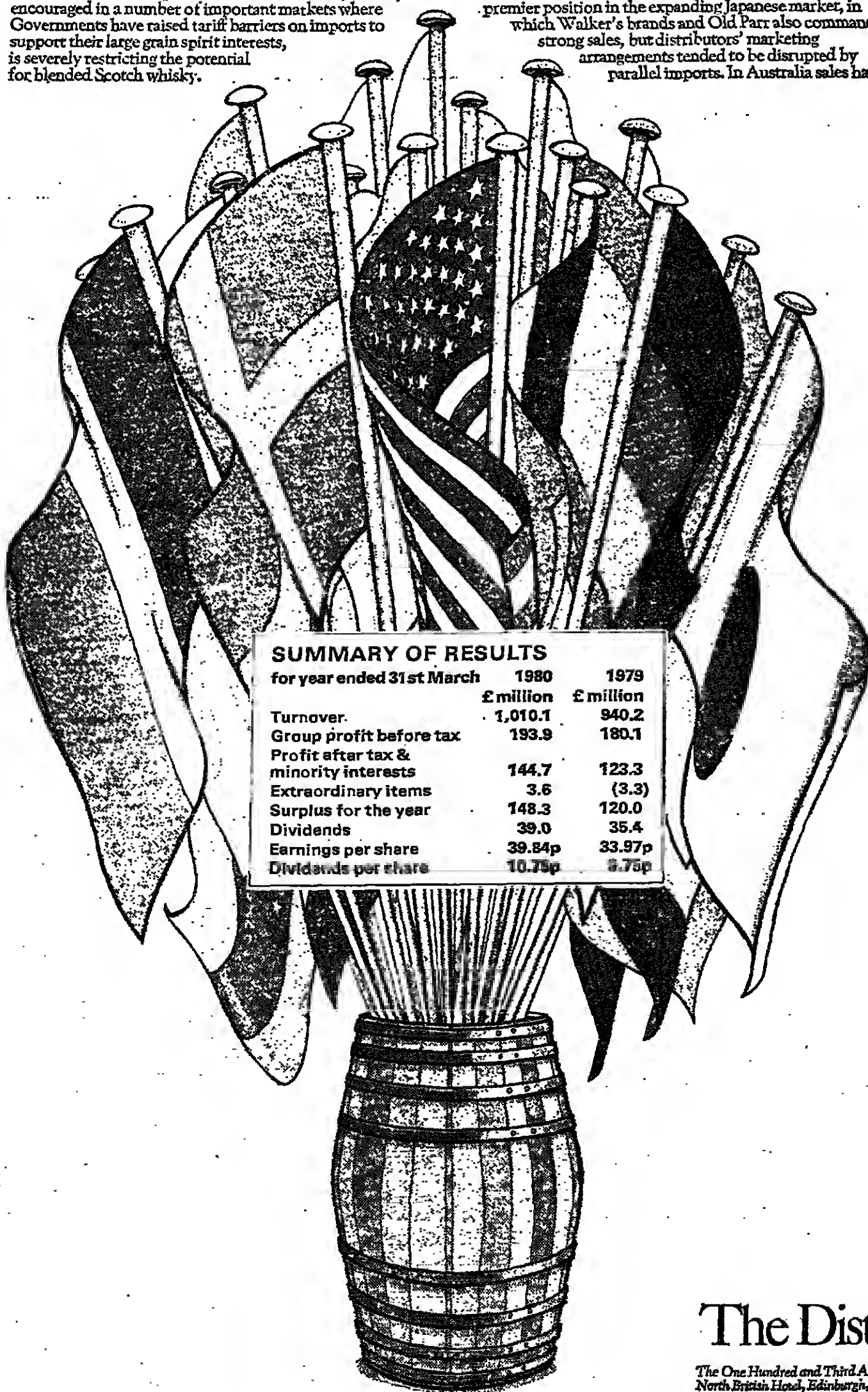
After an encouraging start to the company's current year, demand for its products slumped in the second quarter, and it has been necessary to cut back production and reduce employment in most areas of the company.

Personnel

I have referred elsewhere to the problems we faced because of industrial action at many of our plants in Scotland and I would be less than frank were I not to record the Board's disappointment in that regard. Nevertheless nothing should detract from the Board's recognition of the dedication, the commitment and the loyalty shown throughout the year by the majority of the Group's employees, to whom sincere thanks are due.

Future prospects

Sales of Scotch whisky and gin have shown a not unexpected weakness in the first three months of the current financial year. Stock levels in most world markets were, at the outset, high and the general recessionary influence of high interest rates and pressure on disposable incomes has inevitably encouraged a policy of de-stocking. The strength of sterling, as opposed to its relative weakness in the 1974/75 recession, must also militate against the probability of any rapid recovery in levels of sales. The current year cannot therefore be viewed as one of great promise and the accuracy of forecasting must be threatened by the play of many factors over which industry has little control. At this early stage, and recognising that the need may arise to review the position, I believe that there will be no more than a modest improvement on last year's results.



The Distillers Company Limited

The One Hundred and Third Annual General Meeting of The Distillers Company Limited will be held at the North British Hotel, Edinburgh, on Thursday, the 18th day of September, 1980, at 12.15 p.m.

Royal Dutch/Shell shows underlying advance

SECOND QUARTER net income of the Royal Dutch/Shell Group of Companies was £680m, compared with £710m last time, giving a figure of £1.40n for the first half of 1980 — an increase of 17m over the same period of the previous year.

Adjusting for the effects of the FIFO inventory accounting method and the impact of currency translation and conversion gains, net income for the second quarter was some 18 per cent higher than in the corresponding quarter of 1979.

The increase in underlying earnings was mainly the result of the contribution from oil and gas production operations, offset to some extent by a marked fall in the earnings of the chemical business outside North America.

Reported net income for the second quarter and first half 1980 includes respectively, some £150m and £470m attributable to the FIFO method, rather than a method which matches more closely the current cost of supplies with current revenues. This compares with some £220m in the second quarter of 1979 and £415m in last year's first half.

Net income for the last full year totalled £3,030m. Shell dividends amounted to £18.12p (adjusted £7.65p), which included a special 1.054p on the final settlement of over-accumulated funds, being the equivalent of deferred dividends to dividend restraint. Royal

Dutch payments were raised to £1.225 (F1.075). The interim dividends are normally announced in September.

	1980	1979
First half	£m	£m
Revenues:		
Sales, proceeds	19,961	18,181
Sales, taxes, licence	3,521	3,243
Leasing	15,440	12,938
Other revenues	300	366
Share of associates	404	518
Interest income	189	149
Making	17,312	13,771
Costs and expenses:		
Purchases and costs	12,038	8,155
Selling, gen. and admin.	1,022	1,058
Depreciation	529	163
Amortisation	207	183
Provision for contingencies	257	414
Interest expense	214	189
Tax on income	1,850	1,287
Minorities	180	101
Net income	1,398	1,379

Capital expenditure for the half year rose by 35 per cent over last year's corresponding period to a level of £1,335m (£0.95bn). This, together with an increase in working capital requirements of some £300m, has been financed from group resources.

Second quarter earnings of Shell Oil Company of the U.S. increased 47 per cent to £5,947m, with the advance mainly the result of the strong performance of its exploration and production segment. The earnings of the oil products side also showed an improvement over the corresponding period last year.

Mainly due to improved market conditions for oil products and chemicals, second

quarter earnings of Shell Canada jumped 83 per cent to C\$92m.

Outside North America, oil and gas operations continued to benefit from rising prices. Sales volumes of natural gas decreased by 9 per cent, while oil products sales fell 7 per cent, reflecting the continued general fall in industry demand.

Group companies have, in the main, recovered the increases in crude oil acquisition costs and the higher unit costs resulting from the lower volume of oil products sales.

However, with the continued slackening of demand and the crude oil cost advantage of some major competitors with access to Saudi Arabian crude oil, margins may be difficult to maintain.

Chemicals results fell sharply. In line with the downturn of the economy, selling prices came under increasing pressure as sales volumes dropped substantially leading to lower plant loadings.

Crude oil supply in the first half of 1980 was 3.94m (4.6m) barrels daily, and crude oil processed 3.89m (4.17m) barrels daily.

Total oil sales were 4.61m barrels, against 5.43m barrels last time, while natural gas sales were 6.57bn (7.07bn) cubic feet daily.

Chemical sales proceeds totalled £1,744m for the first half, compared with £1,511m in the corresponding period of 1979.

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Saville Gordon ahead despite two strikes

DESPITE being seriously affected by the engineering strike in the early months and the steelworkers' dispute in the closing months, J. Saville Gordon Group lifted its pre-tax profits from £1.45m to £1.81m in the year to April 30, 1980.

But the effects of this long period of industrial strife are shown in the results of the metal trading and scrap processing division, where the surplus fell from £705,000 to £439,000 because of lack of demand and ever narrowing profit margins.

On the pipeline equipment and engineers' merchants side, though, profits rose from £745,000 to £1.17m, an increase of 73 per cent.

At mid-year, group profits before tax were up at £723,000 (£583,000).

The dividend is raised from 2.44p to 2.92p net with a final of 2.40p and a one-for-five scrip issue is planned.

Turnover went ahead to £26.99m (£21.14m) and net earnings, after tax of £383,000 (£239,000) were £1.22m (£1.21m), or 12.1p (12.1p) per share.

The current year started in a climate of recession which appears to have deepened in recent months, says Mr. Saville. While he admits that demand in most sectors is lower than it was at this stage last year, he feels it is too early to make a meaningful profit forecast.

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BOARD MEETINGS

The following companies have notified dates of board meetings to the Stock Exchange. Such meetings are usually held for the purposes of considering dividends. Official indications are not available as to whether dividends are interim or final and the subdivisions shown below are based mainly on last year's timetable.

TODAY

Interim: A. Industrial Products, Alliance Trust, Senior Machinery, Penland Industries, Ward Holdings.

Final: K.O. Boardman International, Second Alliance Trust.

FUTURE DATES

Interim: Blackwood Hodge, Blackwell, J.C. O.J., Sep. 3; Onewell, J. J., Sep. 3; Hall Engineering, Sep. 26; Hyman (I. and J.), Sep. 1; Jersey Electricity, Sep. 22; Lead Industries, Sep. 10; Royal, Sep. 10; Guinness Peat, Sep. 11.

be a very good year is confined to 11 per cent despite the 37 per cent return in the now dominant metal trading and scrap processing business. Another unwelcome by-product of the dispute was a high year end stock position and an overall draft which had risen by an overall £1m to about £3m. Successful attempts have been made to cut inventories to more normal levels but the group is understandably anything but sanguine about prospects this year. Scrap processing ought, in theory, to recover now that industrial peace has been restored but BSC's marketing strategy is as yet hard to fathom. Merchants sales have been holding up reasonably well so far but margins have been shaved and it is hard to determine whether the engineering industry is anywhere near the turn in the stocking cycle; interestingly, Saville Gordon would

say that customer de-stocking has probably been pursued to the limit. The shares climbed 2p yesterday to 37p where the yield looks reasonably attractive at 12.1 per cent. The fully taxed p/e of 4.8, however, may still be rating the group solely as a scrap processor.

Gelfer slows in second half

DESPITE slowing down in the second half, during which pre-tax profits were £52,856 (£515,044) A. and J. Gelfer, tie and headwear manufacturer, increased its figures for the full year to £232,298 for the full year to March 31, 1980. Turnover was higher at £5.23m compared with £4.7m.

After tax, up from £29,722 to £45,757, stated earnings per 20p share are 0.0729p (0.0906p) and the final dividend is raised fractionally from 2.1p to 2.2p for a total of 3.7p net (3.5p).

Tax charged was higher this time due to the absence of tax relief—last year relief reduced tax by £150,900.

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POLLY PECK

Acceptances have been received in respect of 92.2 per cent of the 2.1m new ordinary shares of Polly Peck (Holdings) offered by way of a rights issue last month. The balance, 165,806 shares, has been sold in the market and the net proceeds distributed to shareholders who did not exercise their rights. The issue raised £1.56m for the company.

Pullman profit reaches £2.3m

Taxable profits of clothing manufacturer and retailer R. & J. Pullman advanced to a record £2.31m in the 12 months to April 30 last—a rise of over 50 per cent, compared with the £1.53m surplus for the previous 13 months.

Sales, which rose from £19.3m to £24m during the period, were also a record.

At the mid-year stage pre-tax profits were ahead by £202,000 at £710,000 and the Board predicted satisfactory results for the year as a whole.

Attributable profit for the 12 months was £1.82m (£1.31m) after tax of £283,000 (£225,000).

A final dividend of 3.97p, makes a total of 5.44p gross for the year, compared with the equivalent of 4.52p for 13 months after allowing for the six for five scrip issue.

The dividend is covered 3.3 times by earnings.

Earnings per 5p share are shown as 13p (8.88p).

The Board says that during the year the group profited from its specialisation in certain areas of manufacture and retailing, such as furs and leathers and children's wear.

In spite of the strength of the pound, exports held up well at £4.4m against £3.2m for the previous 13 months.

But it has not been possible to withstand the competitive pressures from cheap corduroy imports and this activity has been severely curtailed.

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activities are under review. Advantage was taken during the year of the sharp fall in leather and fur prices, and substantial stocks of garments and raw materials were acquired.

After a slow start to the current year, trade picked up during July and August and the company is hopeful of a satisfactory six months to the end of October.

comment

Adding back the rationalisation costs in the corduroy division, Pullman has produced profits slightly above expectations. Corduroy used to be a money-spinner but foreign competition has pushed it into loss and complete closure of the operation looks possible. Elsewhere, however, Pullman continues to expand. The Ronald Joyce acquisition, clipped in around £500,000 and the group believes that its balance sheet will support further purchases this year. The shift towards retailing which represented around 30 per cent of group business last year, seems soundly based on the long term given the incursions that foreign competitors will continue to make on the manufacturing side. After a period of stagnation in the mid-1970s, Pullman has regained its momentum and the p/e of 5.7 on fully-taxed earnings takes account of its recent trading and purchasing record. Up 2p at 46p yesterday, the shares yield almost 13 per cent.

Needlers downturn to £70,000 at halfway

Taxable profits of confectionery manufacturer Needlers for the 25 weeks to June 21 last dropped from £165,268 to £70,014 despite a £489,697 rise in turnover to £3.24m.

In his last annual statement the chairman warned that short-term profitability would be affected by the company's large investments in advertising, new plant and new products.

This programme, he now says, is placing the company in a strong position for the future.

"Our policies," he adds, "have enabled us to increase our market share during a period in which the industry has suffered a considerable setback. Turnover was up 14 per cent and we have been able to maintain full-time working throughout the period."

"We are at present short of certain products, which new plant now coming on to stream will remedy."

"Our second half is normally more profitable than the first half, and we are confident that this trend will continue—although we shall not reach the 1979 profit figure this year."

The pre-tax figure for the 25 weeks includes a contribution from Dickson, Orde and Co, which was acquired last April. After tax of £12,200 (£297) attributable profit showed a fall from £164,971 to £57,814.

Earnings per 25p share are shown as 2.6p, against 8p. There is again no interim dividend. For the whole of last year shareholders received a payment of 2.5p net from pre-tax profits of £321,000.

JOS HOLDINGS

In yesterday's year-end report of Jos Holdings, it was inadvertently stated that the company's bank interest charges rose from £191,000 to £296,000. This should have read £191 to £296.

Interim passed by Westwood Dawes

Structural and mechanical handling engineers Westwood Dawes and Co. has suffered a setback to the first half of 1980. And with little chance of an early improvement in conditions the directors feel there is no justification in declaring an interim dividend.

In the half year turnover rose from £1.16m to £1.36m. But tighter margins and rising costs cut the profit from £45,183 to £35,901, so the "reasonable half year" anticipated in February did not materialise. During the steel strike there were no orders from British Steel Corporation, which has long been a major customer.

After tax of £15,669 (£33,895), net profit is shown at £17,232 (£31,288) for earnings of 1.37p (2.48p) per share. In the year 1979 the company paid a total dividend of 2.5p (including an interim of 1.1p) from pre-tax profits of £122,000.

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Scottish & Newcastle confident of making hotels successful

BY RAY PERMAN, SCOTTISH CORRESPONDENT

AFTER CRITICISM from some shareholders, the annual meeting of Scottish and Newcastle Breweries yesterday endorsed the decision to buy Tilly EM's hotels and restaurants for £23m.

Mr. Peter Balfour, the chairman, said the move was designed to reduce the group's dependence on the increasingly competitive wholesale beer market. The sale had been approved by the Office of Fair Trading and should go ahead without difficulties.

The purchase would make Scottish and Newcastle the third largest hotel operator in Britain, with considerable strength in the important London market.

In answer to criticism of the group's previous unsuccessful attempts at diversification and the poor performance of its existing hotels company, he said that Scottish and Newcastle now had the experience in management and marketing to make a success of the venture.

With its strong marketing organisation it would be able to improve substantially on EM's room occupancy rate.

Some shareholders were, however, unhappy about the group moving away from brewing and thought that more attention should be paid to the marketing of beer. One commented that the proposal to finance the purchase by borrowing meant that £4m a year would have to be earned by the EM hotels before there could be any dividend.

In a statement on trading in the current year, Mr. Balfour said that although it had started well the general recession in the economy and the poor summer meant that business had been below last year's levels in June and July.

This was the general experience of the brewing industry and there was no reason to believe that Scottish and Newcastle was losing market share.

First Scottish American Trust over £1m

Pre-tax revenue of First Scottish American Trust Company jumped from £54,248 to £1,050m in the half-year to August 1, 1980.

Tax was up from £270,150 to £354,116, leaving net revenue of £686,577 compared with £544,098. Stated earnings per 25p share are 2.21p (1.82p), and the net asset value per share is 136.1p (117.1p).

The interim dividend is fractionally higher at 1.3p (1.21p)—last year's total was 4.3p from pre-tax revenue of £1,930m.

DRG (SA) improves

Despite a very competitive market, DRG (SA), the South African flexible packaging, plastics and stationery concern which is 70 per cent owned by the UK based Dickinson Robinson Group, improved pre-tax profits from R4.1m to R4.4m for the six months to end June, 1980.

Broadstone revenue up in first half

After tax and preference dividends, revenue available to Broadstone Investment Trust came out higher at £473,025 for the first half of 1980, compared with £421,453, the first year of the interim dividend, up from 3p to 2.2p net per 20p share, will absorb £300,420 against £273,109.

Last year's total dividend of 7.35p included a final of 4.35p and a special non-recurring 3p paid from an available balance of £1,051m (£778,000).

Gross revenue for the six months amounted to £760,614 (£730,322) before tax and preference dividends of £278,714 and £278,714.

Taking investments at market value total net assets were £7,141m as at June 30, compared with £2,211m, and given as £4,921m (1979) at year end. Comparative figures included 6.7p in respect of the full investment currency premium.

Northern Offshore is latest victim of submersibles slump

BY WILLIAM HALL, SHIPPING CORRESPONDENT

LIQUIDATORS have been called into Northern Offshore Limited, the biggest operator of mini-submersibles in the North Sea. The company, which was established in 1967 in the British Virgin Islands by Mr. Maurice Pinnis has 75 shareholders including North Sea Assets, Hogg Robinson and John Swire and Sons.

Mr. Guy Parsons and Mr. Richard Agutter, partners in Pearl Marwick Mitchell and Company, were yesterday appointed joint liquidators. They said they were actively pursuing the orderly realisation of the group's assets.

Northern Offshore's collapse is the latest in a growing list of casualties in this highly sophisticated engineering field.

Over the last couple of years, Fred Olsen Oceanics of Norway has slipped down its fleet and both P & O and Vickers Oceanics have sold off their loss-making fleets of mother ships and semi-submersibles.

Northern Offshore (NOL) was set up by Mr. Pinnis, one of the founder investors in America's Sea Containers Group, and Burnham (International), an arm of the U.S. brokerage firm. In addition, International Marine Banking, part of Marine Midland Bank, provided support.

Initially, the company prospered. It participated in a joint venture with two Norwegian supply boat operators and shortly afterwards took a 23 per cent stake in Hispania Offshore, a Spanish supply boat operator.

After that projects came thick and fast and the company financed itself with a mixture of bank borrowings and frequent equity calls on its shareholders.

By 1975 it had built up an

interest in 22 vessels and acquired a 60 per cent stake in a small company called InterSub which owned three submersible "spreads" which consisted of a mother ship and mini-submarine. At the time the company employed over 500 people. NOL believed that this business, which was headed by a brilliant Frenchman, Jean-Francois Durand, was a major growth market and ordered another two spreads.

Northern Offshore went back to its shareholders for more funds to finance the expansion but they were starting to get uneasy about the pace of the company's growth and not all of them subscribed additional capital.

The supply and tug boat market was sliding into a serious recession, because of overcapacity, the company decided to withdraw from this sector and concentrate on its submersible operations. But this simply made it more vulnerable.

By 1978 Northern Offshore, which operated out of Aberdeen and Stavanger (Norway), had built up a fleet of 7 support vessels, 5 mother ships and 11 mini submersibles and was the acknowledged market leader both in terms of size and technology. But the company suffered two serious blows in that year. M. Durand, who had masterminded the growth of InterSub, was killed in an air crash, and the submersible market turned down.

In 1978 the group made a pre-tax profit of \$0.8m but the combination of a depressed market and higher interest rates produced a net loss of \$5.5m in

1979. Shareholder and bank support was quickly evaporating. As recently as early last year, a \$20m medium-term loan led by First International Bankshares had been subscribed. But when the group ran into financial difficulties last year the shareholders and the banks were not prepared to provide additional finance.

NOL defaulted on payments of interest and principal relating to several of its borrowings and in May 1980 the submersible operations and related activities, a substantial part of its overall operations, were terminated.

The collapse of InterSub proved to be the final straw and the liquidators have now been called in. The five mother ships and their mini-submersibles are laid-up in Dundee and Gibraltar. A number of the support vessels have already been sold.

Meanwhile, the Northern Explorer, which is less than a year old, is still operating. Occidental and another sophisticated vessel, the Northern Installer, is operating in the Frigg Field on charter to Elf Aquitaine Norge AS. Both will be sold off, presumably to foreign interests.

One of Northern Offshore's shareholders last night blamed the group's demise on the National Enterprise Board's decision to help establish British Underwater Engineering (BUEI) from the remnants of Vickers (licences, which only exacerbated the overcapacity in the submersibles market).

However, in common with the other casualties in the North Sea service market, Northern Offshore's biggest failing was that it was undercapitalised and tried to grow too fast too quickly.

Reliance Knitwear cuts dividend

DESPITE REPORTING a recovery in profitability in the second six months ended April 30, 1980, Reliance Knitwear Group, garment manufacturer, is cutting its final dividend from 2.149p to 1.56p net, making a reduced total of 3.1p per share, compared with 3.68p previously.

The directors comment that present order books are satisfactory, although margins are under severe pressure.

First-half profits had fallen from £350,000 to £228,000, but reflecting the second-half recovery, the final dividend was cut to 1.56p net, making a reduced total of 3.1p per share, compared with 3.68p previously.

The directors comment that present order books are satisfactory, although margins are under severe pressure.

First-half profits had fallen from £350,000 to £228,000, but reflecting the second-half recovery, the final dividend was cut to 1.56p net, making a reduced total of 3.1p per share, compared with 3.68p previously.

Stated yearly earnings per 20p share rose from 6.56p to 6.46p. The tax charge was down from £143,594 to £99,000. Extraordinary debits increased from £112,818 to £195,743 and arose from the closure of Cynat Products and the reorganisation of Barralan. Dividends absorbed £227,649 (£270,902).

comment

Despite a 27 per cent cut in Reliance Knitwear's final dividend, the shares gained 10p yesterday to 25p. The cut has nothing to do with current trading but reflects the board's feeling that the dividend rate had outgrown earnings progress.

Even the cut dividend is covered less than twice. The 8 per cent rise in profits was achieved despite the well-known squeeze on margins by ambitious retailers, but attributable profit was knocked down by the cost of closing Cynat and reorganising Barralan. Both were recent acquisitions but once the sports-wear and camping equipment markets collapsed the company preferred to cut its losses, chastened, it is diversifying into industrial clothing in another attempt to become less dependent on the retail clothing market. Borrowings were up slightly at the year end to 44 per cent of shareholders' funds, (£286,752). Earnings are shown to have risen from 21.99p to 27.89p per 25p share.

not exciting but the yield of nearly 19 per cent seems exaggerated. The p/e is 6.3 fully taxed.

Record year for Herrburger

CONTINUING the improvement seen at mid-year, when pre-tax profits rose 99.1 per cent to £1,175,175, Herrburger, manufacturer of piano actions, keys and hammers, added another £246,189 in the second half, finishing the year to May 31, 1980, with a record surplus of £397,944, compared with £270,240.

The directors warn that the improved results do not imply a comparable increase in earnings for the current year. They recognise that a period of recession is being entered, with inflation continuing at a high rate, and when reviewing the results concluded that a high level of cash retention was required to support the operating capability of the business over this difficult period.

But they add that their aim is to give shareholders a fair share of the earnings in so far as the future funding requirements of the company permit, and in tend to increase the annual dividend from 2.1p to 2.52p net. Should trading conditions improve, they will consider the possibility of introducing interim dividends.

Turnover of the company which is ultimately held by Kinball International Inc. of Indiana, U.S., went ahead from £4.91m to £5.6m.

Attributable profits, after a tax charge of £40,141 against a credit last year of £16,512, finished well up at £337,503 (£286,752). Earnings are shown to have risen from 21.99p to 27.89p per 25p share.

BANK RETURN

	Wednesday August 20 1980	Increase (+) or decrease (-) for week
BANKING DEPARTMENT		
Liabilities		
Capital	14,555,000	+
Public deposits	26,416,159	+ 9,539
Special Deposits		
Bankers' Deposits	978,539,314	+ 257,509,459
Reserve & other Accounts	645,183,455	+ 17,776,134
	1,370,670,928	+ 258,134,597
ASSETS		
Government Securities	672,859,064	- 82,200,000
Advances & other Accounts	472,988,080	+ 122,071,079
Premises Equipment	801,824,465	+ 148,166,217
Notes	82,702,708	- 6,098,065
Other	306,637	- 1,704
	1,370,670,928	+ 258,134,597
ISSUE DEPARTMENT		
Liabilities		
Notes Issued	10,300,000,000	+ 28,000,000
In Circulation	10,277,558,289	+ 12,000,000
In Banking Department	22,641,702	+ 6,059,065
ASSETS		
Government Debt	11,015,100	-
Other Government Securities	9,448,411,476	- 31,792,414
Other	1,840,573,424	+ 106,798,414
	10,300,000,000	+ 28,000,000

DUDLEY	OLDHAM
Metropolitan Borough	Metropolitan Borough
Floating Rate Stock 1982	Floating Rate Stock 1982
for the six months from 22nd August 1980 to 22nd February 1981	for the six months from 22nd August 1980 to 22nd February 1981
The interest rate on the above stock will be 5.17.0000% per annum	The interest rate on the above stock will

Armco diversifies with \$314m bid

By David Lascelles in New York

ARMCO, THE seventh largest steel company in the U.S., is to extend its diversification into the financial services field by acquiring NN Corporation, a Milwaukee insurance company, for about \$314m. Armco has thus snatched NN from Egelbard Minerals and Chemicals which bid \$278m in June and was on the point of polling shareholders.

Under the terms of the Armco offer, each NN share would be exchanged for 1.5 shares of Armco, with provision for an upward adjustment in the price if the Armco share price falls below a certain level.

Temporary ban on Atco deal

By Robert Gibbins in Montreal

ATCO, a Calgary producer of prefabricated industrial buildings which also has drilling contracting interests, has run up against a serious roadblock in its \$500m (\$430m) attempt to win control of Calgary Power, the principal Calgary electrical power distributor.

The Alberta Public Utility Board temporarily has banned Atco from going ahead with the purchase of Calgary Power shares pending the results of an investigation into all the issues involved. Atco said it would make a court appeal.

Earlier this month Atco made a revised offer for 50.1 per cent of Calgary Power's voting shares at \$21 a share.

Pullman agrees to merger with Wheelabrator-Frye

By PAUL BETTS in New York

PULLMAN, the U.S. railway engineering concern which also designs and builds chemical and other processing plants, agreed yesterday to merge its operations with Wheelabrator-Frye in a deal initially worth \$36m but which could eventually be worth \$432m.

The merger of Pullman into a subsidiary of Wheelabrator will follow an initial cash tender offer by Wheelabrator for 2m Pullman shares at \$43 a share.

This will give Wheelabrator an initial stake of just over 18 per cent in the railway engineering company.

But under the terms of the agreement, Wheelabrator will have a further option to buy an additional 2m Pullman shares together with the option to acquire up to 1.8m newly issued

Pullman shares at \$36.975 a share before the end of next February.

Moreover, the agreement gives Wheelabrator a cash option to buy all the assets and liabilities of Pullman's engineering and construction business for \$200m.

The agreement ends months of speculation over the envisaged acquisition of all or part of Pullman by another major U.S. group.

The deal also represents a setback for the New Orleans engineering and construction services company J. Ray McDermott, which had sought to increase its stake in Pullman to more than 20 per cent by bidding for up to 2m Pullman shares at \$28 a share.

But the Pullman board fiercely opposed the deal

because it regarded the McDermott offer inadequate.

Until yesterday it was not clear which other companies were involved in negotiations with Pullman. Among these companies Enserch Corporation, a utility and diversified energy company, and Asbland, the largest independent U.S. oil company, were believed to be interested in making an offer for Pullman.

Wheelabrator, a fast-expanding manufacturer of pollution control and synthetic fuel systems, also with chemical interests, failed earlier this month to acquire Huxley Corporation, the U.S. paper clothing business. At the last moment it was outbid by BTR, the UK rubber and plastic group.

Deere suffers sharp setback

By Ian Hargreaves in New York

DEERE and Company, the leading maker of agricultural equipment, yesterday reported a sharp setback in its third quarter earnings and Caterpillar Tractor, the world's largest construction equipment group, announced another sweeping round of redundancies.

Deere suffered a 3 per cent sales decline in the quarter to \$1.36bn and saw net profits slashed from \$97m in the same quarter a year ago to \$27.7m. For the nine months sales were up 10 per cent at \$4bn, but net income was down from \$271m to \$183m.

Deere, which has affiliates in Australia, Argentina and Turkey, said its overseas business continued to suffer substantial losses, while at home the severity of the recession for farmers had forced sharp reductions in production levels.

The company has also set lower production levels up to the middle of 1981, but Mr. William Hewitt, the chairman, said he was encouraged by the improved outlook for farm incomes in the U.S. stemming from recent increases in livestock and crop prices.

He foresaw little improvement in spending on construction equipment before next spring, which means operating results for Deere are unlikely to improve during the balance of this year.

On a dollar basis, farm equipment sales in the third quarter were up by 4 per cent to \$1.1bn, but industrial equipment sales slumped by 32 per cent to \$190m.

At Caterpillar, the process of building up stocks and satisfying orders after the almost three month strike in the U.S. at the end of last year seems to be virtually complete. As a result the company is to lay-off indefinitely a further 2,500 workers in the U.S., taking total layoffs to 5,700—more than 8 per cent of its U.S. workforce.

In addition, the company will shut down entirely in the U.S. for one week in November and expects a further adjustment in its European production levels. Caterpillar workers in Britain are already on a four day week.

Caterpillar says it now expects unit sales this year to be lower than last year's strike-affected performance. Net profit for the year, it said, was unlikely to exceed last year's \$492m.

RKO to sell TV station for \$54m

By David Lascelles in New York

IN A move to head off some of the Federal Communications Commission's displeasure, RKO, the broadcasting company, is to sell off a TV station for \$54m.

RKO, a subsidiary of General Tire and Rubber, was deemed by the FCC earlier this year to be unfit to operate three of its TV stations because of allegations of improper political payments and accusations that companies had been pressed into advertising on RKO-owned stations as a condition of doing business with General Tire. General Tire has vowed that it will fight the FCC's action all the way to the Supreme Court.

The station to be sold is WMAQ-TV Boston, and the purchaser is a group specially formed by local Boston interests. However, RKO will apparently continue to challenge in the courts the FCC's ruling that it loses its licence for two other TV stations, in New York and Los Angeles.

The FCC is also considering depriving RKO of licences to its fourth TV station and 12 local radio stations. However, current indications are that it may decide against such an extreme step.

Although RKO would retain its broadcasting facilities if the worst came to the worst, they would be virtually worthless without a broadcasting licence. Thus the FCC's course would, if pursued, be a staggering business blow to General Tire.

But the fact that the company is willing to go through with the expensive re-organization process for the furnaces is one of the first indications so far that the steel industry has started to believe the statistical signs that the U.S. economy is now on the way out of recession.

U.S. Government backs Roan Mines' Eurocredit

By PETER MONTAGNON

ROAN CONSOLIDATED Mines is raising a \$30m Eurocredit to finance its copper and cobalt mining activities in Zambia. The credit bears an unusual feature in that it is backed by the governments of both the U.S. and Zambia.

The U.S. involvement comes with the position as guarantor of the Overseas Private Investment Corporation, a government agency whose support backs the credit with the full faith and credit of the U.S. Although details are not being disclosed, this rare guarantee should help the U.S. to secure supplies of cobalt, a strategically important mineral, as well as copper and lead.

Cobalt, the rarest of the three metals, has important industrial applications especially in the aerospace field.

Because of the U.S. backing, the credit bears a margin of only 1 per cent over London interbank rates for six years. This ranks it as a top quality risk in the Euromarkets and the margin is thus much lower than it would have been had the Republic of Zambia been the sole guarantor.

Chase Manhattan's London branch is acting as agent for the credit, while the bank's UK subsidiary, Chase Manhattan Limited, is lead manager alongside Irving Trust Company. Only a limited number of other

institutions are being approached to participate. Roan Consolidated is incorporated in Zambia but quoted on the London Stock Exchange. It is 61 per cent owned by the government of Zambia.

Earlier this week it reported a sharp fall in first quarter profits, down to kwacha 33.9m (\$11.7m) from kwacha 33.9m. Although the situation is slowly improving, the company has faced transport problems following the civil war in Zimbabwe. This closed exports of both cobalt and copper. It also suffers from a chronic shortage of skilled manpower.

Rally in dollar Eurobond prices

By OUR EUROMARKETS STAFF

PRICES OF straight dollar Eurobonds staged a technical rally yesterday to finish with gains averaging about 2 points, but the reversal in sentiment was short-lived and the market closed with a weak undertone.

Impetus for the price movement came from New York where U.S. Government securities had moved markedly higher on Wednesday night. Dealers felt that this was little more than a reaction to recent weakness and as expected prices were already resuming their downward trend by yesterday lunch-time in Wall Street.

A significant feature of the Eurobond market was the price oscillation of the new Alcoa deferred payment bonds which fell at one stage to around 21 before recovering about a full point by yesterday evening. The market is still uncertain about the extent of allocations to the underwriters.

In the Canadian dollar sector Bankmount Realty, a unit of Bank of Montreal, is raising \$850m through a straight eight-year bond with a coupon of 12 1/2

per cent and issue price of par. Co-lead managers are Morgan Stanley and UBS Securities.

In Germany the decision by the Bundesbank to reduce minimum reserve requirements by 10 per cent had little impact on the bond market.

The market still believes that German rates will be reduced at some stage, especially since the economy is now showing some signs of a slowdown.

Meanwhile, much depends on further developments in the U.S. for the time of any cut. One thing the Bundesbank wishes to avoid with its interest rate policy is sparking off any further appreciation of the dollar against the mark, which would tend to spur inflation.

For the short term the market is looking forward to a heavy calendar of new issues. This was set at a time when it was still believed there was a real possibility of the Bundesbank easing monetary policy at its regular meeting yesterday. As it happens, monetary policy is left virtually unchanged by the

meeting since even the freeing of minimum reserves will only offset previous liquidity measures due to expire shortly. In these circumstances, some bankers are uncertain as to how easily the market will be able to digest next week's offerings.

WestLB said yesterday the planned DM 100m private placement for Seibu Stores has been postponed till at least next week for technical reasons not related to the Bundesbank meeting. Prices on the secondary market closed 1 point higher with the Sweden DM 200m issue due to be priced officially on Monday quoted at less than 1 1/2 in the grey market.

Swiss franc issues closed little changed. Meanwhile, the National Bank of Hungary has completed arrangements for a \$15m floating rate certificate of deposit issue with a margin of 1 per cent over six-month Libor. The three-year issue is the first by a central bank as well as the first to be floated by an East European address. Lead manager is Nippon European Bank.

FT INTERNATIONAL BOND SERVICE

The list shows the 200 latest international bond issues for which an adequate secondary market exists. For further details of these or other bonds see the complete list of Eurobond prices published on the second Monday of each month.

U.S. DOLLAR						Change on	
STRAIGHTS	Issued	Bid	Offer	Day week	Yield		
Alcoa 11 1/2 80	100	94 1/2	95 1/2	+0 1/2	13.28		
CECA Grad Rate 12 3/8	100	94 1/2	95 1/2	+0 1/2	13.27		
CECA 11 1/2 80	100	95 1/2	96 1/2	+0 1/2	13.27		
Chrysler 11 1/2 80	100	94 1/2	95 1/2	+0 1/2	13.28		
Chrysler 11 1/2 80	100	94 1/2	95 1/2	+0 1/2	13.28		
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Companies and Markets

INTERNATIONAL COMPANIES and FINANCE

WEST GERMAN CHEMICALS

Hoechst hit by economic slowdown

BY KEVIN DONE IN FRANKFURT

HOECHST, the largest West German chemicals group, is being hit by the slowing West German economy and stiffening competition in world markets. Growth of both group profits and sales slowed considerably in the second quarter.

In a letter to shareholders yesterday the group admitted that its plants were working at only 80 per cent of capacity in the second quarter compared with 85 per cent in the first three months of the year. This decline was caused by falling volume sales meant that the profitability of the parent company fell in the second quarter below the average achieved last year.

Overall, however, the very strong performance in the first quarter is still serving to put a fine gloss on the group's performance in the first half.

Hoechst's sales worldwide in the first six months rose by 15.3 per cent to DM 15,026m (\$8.4bn), with the major boost coming from strong demand in foreign markets.

Sales abroad rose by 17.9 per cent while sales in the West German market increased by only 9.9 per cent. Hoechst's plants in the U.S., Western Europe and Africa made particularly strong progress with

important contributions coming from agricultural products, pharmaceuticals and process plant engineering.

Worldwide, Hoechst boosted its pre-tax profits by 15.5 per cent in the first six months to DM 907m, while the parent company raised pre-tax profits by 15.9 per cent to DM 524m on a turnover of DM 5.8bn, an increase of 10.6 per cent.

Sales volume in the first half of the year showed an increase of only 2 per cent. The downward trend in the second quarter of the year has continued into the third quarter.

Like its major rival BASF, Hoechst said yesterday that it

had found it impossible to pass on in full its higher raw material costs. Competition was being felt most keenly from countries which had an advantage in lower energy and feedstock costs, such as the U.S.

Net sales of Geronon fixed interest securities fell sharply in July to DM 1.6bn after DM 4.2bn in June, and in July last year. Gross sales rose to DM 11.6bn from DM 10.7bn in June, and DM 10.3bn in July 1979, but redemptions, at DM 10.7bn, were unusually high.

The reduction in net sales was due principally to heavy repayments by public authorities of a net DM 1.95bn.

Nippon Seiko lifts consolidated earnings

By Yoko Shibata in Tokyo

NIPPON SEIKO, one of the leading manufacturers of bearings and machinery parts, and its nine consolidated subsidiaries, increased profits sharply in the fiscal year ended April 30, largely due to brisk overall sales of ball bearings.

Nippon Seiko's consolidated operating profits more than doubled to ¥14,268m (\$64m). Net profits were boosted 56.6 per cent to ¥8,058m (\$35.9m).

Consolidated sales of Nippon Seiko increased by 12.5 per cent to ¥166,677m (\$867m). The turnover of the parent company accounted for ¥167,724m.

The upsurge in sales was accounted for by brisk demand from car and machine tool industries for ball bearings. At the same time, a new product, ball set screws, fared well. Demand for these from numerical control (NC) machine tools were brisk. Sales of ball set screws are expected to grow to ¥13bn in the current fiscal year from ¥7bn a year before.

The company's nine consolidated subsidiaries, including four overseas manufacturing subsidiaries (in the U.S., Brazil, Germany and UK) worked at full capacity.

For the present fiscal year the company sees continuing favourable demand from car makers and machine tool manufacturers. To cope with rising demand, the company plans to increase production capacities of U.S., UK and Brazilian subsidiaries by 50 per cent in the current year.

Consolidated operating profits are forecast at ¥17bn (up 18 per cent), net profits at ¥10bn (up 24 per cent) on sales of ¥220bn (up 11 per cent) for the fiscal year ending April 30, 1981.

Peak outcome and scrip issue from Lend Lease

BY JAMES FORTH IN SYDNEY

LEND LEASE Corporation, the largest property development and management group in Australia, has announced a peak outcome of AS\$20.35m (U.S.\$23.58m) in the year to June and plans a scrip issue. The Board has also decided on a "special dividend" totalling AS\$6.68m which will be satisfied by the distribution to Lend Lease shareholders of shares in the U.S. affiliate, International Income Property Incorporated.

The distribution will be one IIP share for every 100 Lend Lease shares and will reduce the holding of Lend Lease in

IIP from 32 per cent to 17 per cent. IIP, which is traded in the U.S. on the over-the-counter market, owns regional retail complexes in Pennsylvania and Georgia. IIP will also make an offer to its own shareholders to purchase small holdings of less than 25 shares, which will be cancelled.

The Lend Lease distribution will increase the number of IIP holders and Lend Lease hopes the stock will eventually be listed on the New York exchange.

The ICI Pension Fund in London is one of the largest

single shareholders in IIP. The profit increase was achieved on a 10 per cent lift in turnover, from AS\$33m to AS\$36m (U.S.\$42m). The dividend is held at 15 cents a share and is covered by earnings of 32.5 cents, compared with 60.3 cents in the previous year.

The scrip issue will be on the basis of one new share for every 20 held, and the directors expect to maintain the dividend on the increased capital.

The directors said that Lend Lease was budgeting for higher levels of revenue and profits for the 1980-81 year.

Midway rise at Anglo-Alpha

BY JIM JONES IN JOHANNESBURG

SOUTH AFRICA'S second largest cement manufacturer, Anglo-Alpha Cement, has gained significantly from the rising demands of the construction industry. During the six months to June 30, first-half operating income rose by 56.5 per cent to R19.6m (\$23.8m) compared to R12.5m in the first half of 1979.

Turnover was 33.8 per cent ahead at R85.2m (\$112.1m), compared with a turnover of R138m and operating profit of R29.9m for the whole of 1979.

The Board reports that the company's cement division was the main contributor to profit growth due to the strong upsurge in the building and construction sector. Lime production, on the other hand, operated under capacity constraints. New plant being commissioned will increase lime capacity by 27 per cent, while further capacity is to be added in 1981 and 1982.

The management expects the second-half results to be better than the first-half but there is

the warning that the improvement will not be as great as during the first half as this was measured against a particularly poor 1979 first-half, affected by low construction industry activity.

An 11.5 cents interim dividend

compared to 7.5 cents has been declared from first-half earnings per share of 22 cents—adjusted for inflation—compared to 10.5 cents. In 1979 a total dividend of 17.5 cents was declared from inflation-adjusted earnings of 33.7 cents per share.

Liberty Life surges ahead

BY OUR JOHANNESBURG CORRESPONDENT

LIBERTY LIFE Association, South Africa's largest publicly owned life insurer and the third largest life company in the country, has reported record results for the six months to end-June.

First-half premium income net of reinsurance rose to R94.8m (\$124.82m) compared with R72.3m during the corresponding period of 1979 and R147.8m for the whole of last year. Investment income reached R37.4m against a 1979 first-half level of R28.4m and R62.7m for the full 1979 year.

Mr. Donald Gordon, the chair-

man, attributes the increase in new business to South Africa's improved economic environment. He adds that the better performance also reflects deeper market penetration after a major marketing operation.

An interim dividend of 50 cents compared to 42 cents in the 1979 first-half is to be paid from first-half earnings per share of 69 cents (60 cents). The directors expect that, subject to no unforeseen circumstances, earnings this year will be higher than in 1979 and predict that a final dividend of 65 cents will be declared.

Kaufhof and GB Inno in fast food deal

By Our Frankfurt Staff

TWO OF Western Europe's largest retail stores groups, Kaufhof of West Germany and GB Inno of Belgium, are joining forces in an attempt to break into the fast food business in the Federal Republic.

Kaufhof, the second largest department store group in West Germany with sales last year of just under DM 80n (\$4.5bn), is taking a 60 per cent stake in a joint-venture company to be established with headquarters in Cologne.

The venture will break entirely new ground for Kaufhof, which will rely largely on its Belgian partner for the expertise in running a chain of fast food restaurants.

Inno is already active in this field in Belgium along with its major interests in department stores, supermarkets and hypermarkets. It has an annual turnover of nearly DM 6bn and is the largest retailer in Belgium.

The new company, Zentra "Hamburger" Schnellrestaurant, will have a basic capital of DM 100,000. No name has yet been selected for the restaurant chain, but Kaufhof said yesterday that its first fast food hamburger outlet should be ready to open by the beginning of next year.

Kaufhof, like the other major West German department stores groups, has suffered badly in recent years from the rising competition from other forms of merchandising, particularly hypermarkets and mail order, and has been looking hard for opportunities to diversify.

At the end of last year it took the plunge into the mail order sector by acquiring a 76 per cent stake in the Friedrich Wenz mail order group for around DM 165m.

Kaufhof has clearly been attracted to the fast food business by the possibility of more dynamic growth rates. Several hamburger chains, such as McDonald's and Burger King, have started to make a major impact on the German retail food industry.

Kaufhof said yesterday that several sites for its new hamburger restaurant chain had been located in city centres around West Germany, but no deals had yet been completed. The expansion of the new venture would at first be determined primarily by the speed at which suitable sites could be found.

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SKF doubles first-half profits

BY WESTERLY CHRISTNER IN STOCKHOLM

SKF, the Swedish bearings and steel manufacturer, has continued last year's recovery with a SKR 535m (\$125m) profit for the first half, more than double the SKR 237m reported a year earlier.

Sales increased by 18 per cent to SKR 6.5bn at the end of June. The first quarter accounted for SKR 6.2bn but sales for April-June were SKR 468m higher than a year earlier.

Although no forecast was offered for 1980 as a whole, SKF stated "there is no indication that the group's market demand will undergo any radical change during the next few months." The prediction made in the 1979 annual report

for increased sales and "significant improvements" in this year's group income, should thus be fulfilled.

A major portion of the six-month sales increase was an 18 per cent, SKR 600m, gain to SKR 4.7bn in roller bearing sales. However, relative rises in sales were greater for SKF's non-bearing products. There was a 25 per cent increase for special steel products during the half-year to SKR 1.14bn, a 23 per cent improvement for cutting tools to SKR 290m, and a 29 per cent rise for other products to SKR 800m.

Profit margins in the roller bearing division rose from 3.9 per cent to 8.7 per cent during the half-year. The margin for

steel division products improved to 4.7 per cent.

Improvements were also shown by German and Italian subsidiaries, SKF (UK) and the French unit, moved out of the red. Smaller manufacturing units in the overseas bearing division made "good progress, particularly the Indian company."

Depreciation totalled SKR 230m, basically unchanged from January-June, 1979. Net financial costs were SKR 223m against SKR 194m.

Capital expenditure amounted to SKR 192m, and was used mainly for rationalisation. Liquid funds at the end of June totalled SKR 1bn, compared with SKR 680m.

The second main strength is that the company is principally involved in growth sectors such as solar and space technology, nuclear power engineering and, benefiting from trend towards fuel-economy diesel engines.

However, these medium-term strengths will probably only provide limited comfort over the coming nine months. Germany's motor and shipbuilding industries have both been warning that there is a particularly tough year ahead, and inevitably this will have some effect on MAN, despite reporting improvements in its truck and ship engines divisions. And although nuclear power engineering orders have begun to pick up, no radical improvement can be expected until the political deadlock over the future of nuclear power in Germany has been resolved.

MAN, however, has a number of strengths which should secure its medium-term future. First, it is diversified and has an even order distribution in such potentially vulnerable areas as the trucks section. This allowed MAN to fill rapidly the gap left by the completion of a large Germany army order with both high domestic truck sales and higher sales from other units such as the printing machinery division.

Mixed income trend for MAN

BY ROGER BOYES IN BONN

MAN, the West German commercial vehicles and mechanical engineering group, experienced unsatisfactory profits in some divisions during the year ended June but expects to pay a "suitable" dividend.

A letter to shareholders explains that the group reported an 11 per cent sales increase to DM 7.5bn (\$4.4bn) and that new orders, buoyed by high demand for commercial vehicles and a pick-up in the marine engine market, rose 13 per cent to DM 8.2bn. Orders in hand rose by 5 per cent to DM 8.6bn.

MAN's earnings problem has two main roots. In the first place, MAN, a main holding of the Gutehoffnungshütte engineering group, had to offer uneconomical prices to win orders in some of its more troubled divisions, notably the power station division GHH Sterkrade and the marine diesel

engine section. This was judged to be a reasonable move to keep up capacity utilisation during the lean years, but it naturally had an adverse effect on earnings.

The other problem is more in the nature of teething troubles with a long run-in expected for such innovations as the new range of 6-9 tonne trucks, and the new line in motor vehicle diesel engines.

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Maintained interim result from Veba

By Leslie Collett in Berlin

VEBA, which is both the largest energy group and the largest company in West Germany, boosted sales in the first half of this year to DM 20.3bn (\$11.5bn) from DM 18.9bn a year ago. After-tax profits remained flat at DM 165m, compared with DM 167m.

Herr Rudolf von Benningsen-Foerder, group chairman, told the annual shareholders' meeting in Berlin he was confident an "adequate dividend" would be paid for this year, despite a more difficult second half because of the economic slowdown in West Germany.

Herr Benningsen-Foerder said the company expects only small growth rates in West Germany's future energy consumption. Veba will increasingly use coal and nuclear energy.

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Sharp gains by Boliden despite labour strife

BY OUR STOCKHOLM STAFF

BOLIDEN, the metals and chemicals group, posted pre-tax earnings of SKR 289m (\$69.5m) for the six months to June compared with SKR 163m a year earlier. Turnover during the period rose to SKR 2,58bn from SKR 1,75bn.

For 1980 as a whole the company forecasts pre-tax earnings of SKR 475m—up from SKR 371m last year but SKR 25m less than was predicted at the beginning of this year, due to the nationwide Swedish labour strike and lockout in May. However the figure is only just under the 1974 peak of SKR 492m.

Sales during 1980 are estimated to reach SKR 5.2bn, up SKR 1.24bn, and just exceeding the forecast made in the first quarter of SKR 5.1bn.

The labour conflict which caused widespread production cutbacks within Boliden Metall and Boliden Kemi in particular, is estimated by the group to have cut profits by SKR 75m.

The second quarter pre-tax profit was SKR 95m compared

with SKR 194m for the first quarter underlining the effect of the strike. With SKR 239m earned up to the end of June, the group needs to make a pre-tax profit of SKR 160m to meet its SKR 475m target for this year. For the second half last year it earned SKR 203m pre-tax. Earnings per share this year are expected to reach SKR 60.

The company notes that the market for metals during the first quarter this year was marked by "exceptionally" high prices, making up for a weaker trend from April to June, especially in the U.S.

Furthermore Boliden predicts that the fall in production caused by the labour disputes will be made up for later this year with a greater improvement in metal prices than earlier expected.

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TV layoffs by Philips

BY CHARLES BATCHELOR IN AMSTERDAM

PHILIPS, the Dutch electrical group, announced plans to reduce the number of jobs in its video division in the Netherlands. The company will shed 520 jobs at three factories by next May, reducing the work force in its video division to just under 5,000.

This has become necessary because of a levelling off of demand for colour television sets in Europe and improvements in productivity, the company said. The union representing the workers involved said it had no alternative but to accept the move.

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Moët-Hennessy

An agreement in principle on the complete takeover of Schieffelin and Co. by the Moët-Hennessy Group was signed in New York on 8th August 1980. This agreement is subject to the approval of the Board of Directors of both companies as well as of the public authorities concerned.

Schieffelin and Co. is one of the leading American distributors of wine and spirits, and is the commercial agent of the Moët-Hennessy Group in the United States. It also owns the "Simi" winery in the Sonoma Valley of Northern California, and has a 50% interest in "Sichel", the German wine company.

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APPOINTMENTS

Personnel director for Rank Xerox

Mr. Kenneth G. Saltre has been appointed director, organisation, personnel and training for RANK XEROX (UK). He has been with the company for 11 years, and has held a variety of posts in the international personnel department with staff responsibility for some 25 Rank Xerox operating companies throughout Europe, Africa, the Far East and Australia. In 1978 Mr. Saltre was assigned for two years to Xerox Canada Inc. in Toronto as vice-president, personnel and organisation. His new appointment gives him personal responsibility for the company's 5,000 employees throughout Great Britain.

Confederation of British Industry, has joined the Board of the HOGG ROBINSON GROUP.

Mr. P. J. R. Leyden and Mr. A. E. Oppenheimer have been appointed directors of DE BEERS CONSOLIDATED MINES. Mr. P. J. L. Crokaert has resigned from the Board.

Mr. Clive Jenkins, general secretary of the Association of Scientific, Technical and Managerial Staffs, has been appointed a member of the BRITISH OVERSEAS TRADE BOARD. He has replaced Mr. Joe Gormley.

RICHTON INTERNATIONAL, manufacturer of fashion jewellery, has appointed Mr. Konrad Schluttenhofer as managing director and successor to Mr. Fred Plato, who retires on September 1. Mr. Plato will continue as executive vice chairman.

Dr. Edward Stern has been appointed to the GALLAHUE TOBACCO Board. He will be director of research and will also continue with his present responsibilities in research and development.

Mr. John M. Weiner has joined the Board of SEA AND STORM SERVICE SPECIALISTS as chairman in succession to Mr. Martin C. Barracough. Sea and Storm Services Specialists is the UK member of Seasm S.A., the French international offshore survey group.

Mr. Brian D. Keefe has been appointed personnel director and to the Board of DOLLOND AND AITCHISON.

Mr. J. J. Reed and Mr. P. J. Thurlin will become joint managing director of BROWN, SHIPLEY AND CO. on September 1. Mr. S. J. C. Dick and Mr. T. M. Trowell (senior managers) will be appointed directors.

Dr. H. O. Witte, formerly assistant general manager of Deutsche Bank, London branch, has joined LANDESBANK RHEINLAND-PFALZ, Mainz, as senior vice-president in charge of the international division.

Mr. Francis Madden has been appointed deputy managing director of EAST ANGLIAN SECURITIES HOLDINGS from October 1, and will have particular responsibility for the general banking and corporate advisory services provided by the group's principal subsidiary, East Anglian Securities Trust.

Sir John Hedley Greenborough, until recently president of the

Mr. Tony Gould has been appointed UK and Ireland branch director, INTERNATIONAL WOOL SECRETARIAT. He joined the IWS in 1971 and was promoted to branch manager in May 1978. The area director, Western Europe, Mr. Egon Kolsch, states that Mr. Brian Lucas will take over as area administrator from September 8. This is a new appointment. He will be based in Düsseldorf. Mr. Lucas is international marketing director, carpets, home textiles and special products. He joined the IWS in 1965.

THE CENTRAL ELECTRICITY GENERATING BOARD has appointed Dr. Rex Savidge as architect from September 1. He succeeds Mr. Howard Mason, who died last December. Dr. Savidge joins the Board from the Nottingham practice of Gellisthorpe Savidge and Simpson, in which he was a partner. He will lead a team of architects and landscape architects within the Board's generation development and construction division, based at Barnwood, Gloucester.

GOEBEL of Bavaria, West Germany, has established Goebel United Kingdom. Goebel products were distributed by Heala-craft, and several of the Heala-craft management team have agreed to join Goebel UK, including Mr. Graham Harding as general manager of the new company.

ENERGY REVIEW: URANIUM ENRICHMENT IN FRANCE

BY DAVID FISHLOCK, SCIENCE EDITOR

Success for energy-hungry process

ENVIALE IS the factory which can claim to have sold its entire production capacity under rock-hard guarantees for a decade ahead. France has such a factory nearing completion in the Rhône Valley. Tricastin is a £2bn industrial investment launched in the wake of the OPEC oil crisis of late-1973, as an integral part of its own and other nations' plans to combat oil scarcity with nuclear energy.

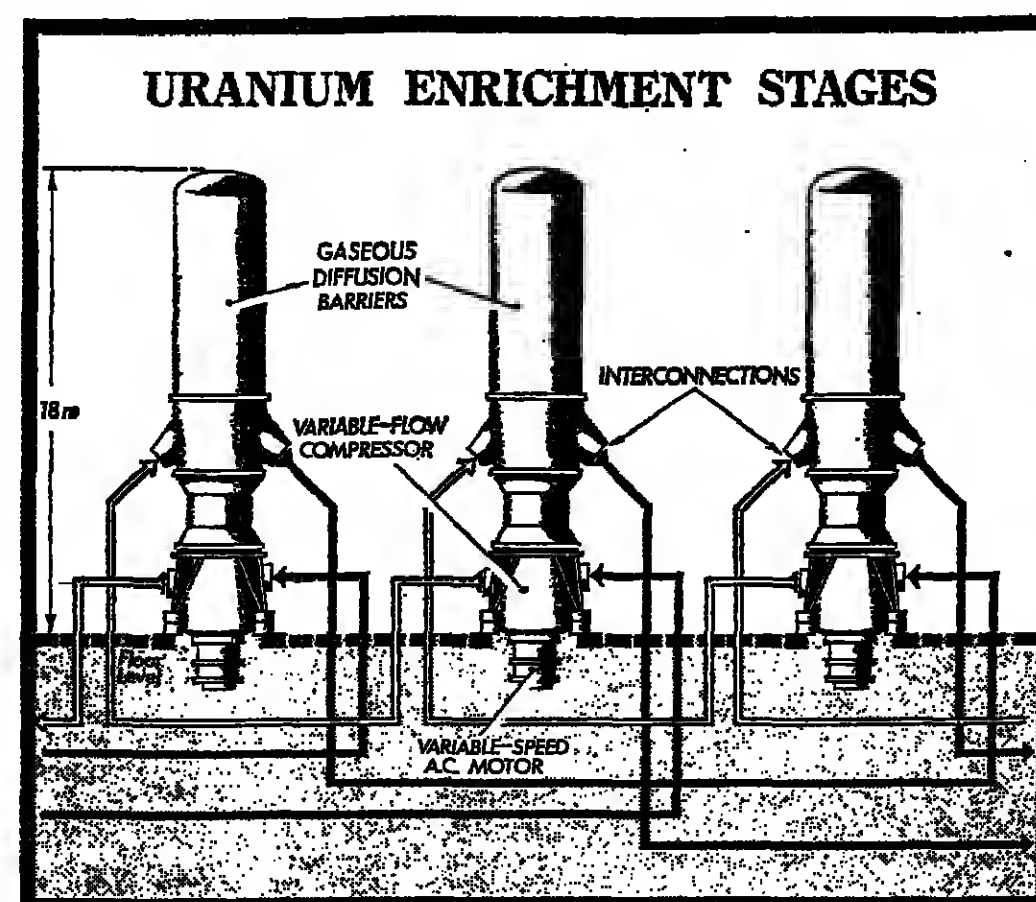
Tricastin is a factory for the enrichment of uranium, the process which artificially enhances the fissile uranium-235 component of uranium ore and permits the design of smaller and cheaper nuclear reactors.

The process of enrichment is a physical and not a chemical one, from which the feedstock emerges chemically unchanged. The simplest way of visualising it is as a method of storing energy—in this case, electricity—which the nuclear reactor can liberate again. From Tricastin steel drums of energy, stored in the chemical uranium hexafluoride, are already being dispatched to national stockpiles all over the world. By the end of next year Tricastin is expected to be operating at full capacity—just eight years after the French Government authorised the project.

Full capacity means that the one factory will be drawing about 3,000 MW of electricity; almost as much as London's peak demand last winter. The adjoining nuclear power station, one of Europe's biggest, is dwarfed by the sprawling enrichment factory.

Inside the plant towering steel columns are being assembled rapidly in ranks of ten, and interconnected with ducts the diameter of gas mains. Each is an accurately made fabrication, leak-tight to contain the toxic gas which is blasted by the compressor in the base of each column from one stage to the next. Each is effectively a filter through which molecules of the lighter, desired uranium-235 isotope passes a little bit quicker than uranium-238. Electricity is needed to pump the gas in this energy-hungry process.

With no evidence of the chaos which characterises major construction projects in Britain, the 1,400 separate stages of the gaseous diffusion process for Tricastin are close to completion. Specially designed equipment deftly manoeuvres large sections of columns, compressors and so on, into position.



like pieces of Meccano. The base of each column, containing the compressor and its motor (see sketch), is optically aligned and sealed into the floor of a concrete cell the size of a football pitch housing a score of stages. "The rest follows easily," the French engineers say. With the third of four tranches of enrichment capacity close to completion (its operation is expected to begin next month) their confidence seems to be justified.

One part remains secret, however, even to those who are building Tricastin. This is the filter itself, provided as a "black box" made by a factory set up for the purpose by the French Atomic Energy Commission (CEA), and inserted unseen into the columns. So successful have they been at mass-producing this remarkably tricky membrane, CEA scientists claim, that to their chagrin they find little demand for replacement "black boxes," and will soon be forced to mothball the factory making them.

Tricastin is a multi-national venture, owned by Eurodif, a five-nation company: France, 42

per cent; Italy, 25 per cent; Spain, 11.11 per cent; Belgium, 11.11 per cent; and Iran, 10.78 per cent. The fate of the Iranian shareholding has been in the balance since that country stopped construction of its nuclear stations. But recently Iran had indicated that it plans to restart nuclear station construction. M. Jean-Francois Petit, president of Eurodif's Board of management, says, "First deliveries to Iran are scheduled for 1981, and M. Petit says that he hopes to settle this year whether Iran will take and stockpile the enriched uranium or resell it — as shareholders are entitled to do — for direct delivery to a third party."

France, Belgium and Spain all have substantial nuclear power programmes. But Italy's failure to find sites for nuclear reactors has obliged it to ask for its shareholding in Eurodif to fall to 16 per cent. France plans to take up the 9 per cent involved and thus will become the majority shareholder with 51 per cent.

M. Petit is pleased with the way Tricastin has remained on schedule, and — inflation apart

— close to a budget set in 1973, at a time when the project had been both accelerated and expanded. The total cost, estimated at FFr 23bn (about £2.4bn) will have been raised in three equal portions: from cash flowing from down payments on long-term enrichment contracts, from Eurodif's own capital, and from Government-backed loans raised in the five nations involved.

Contracts already signed with about 1,000 suppliers now amount to virtually all the FFr 23bn. About 90 per cent of the Tricastin's output for the first ten years of a 20-year design life has already been sold to the electricity supply industries of the five partner-nations, with the balance ordered by Japan, West Germany, and Switzerland.

Tricastin produced its first saleable product two years ago. But until the biggest stages of the process are completed next year it will continue to rely upon some of the stages in France's own enrichment factory at Pierrelatte, literally over the fence. Pierrelatte provides highly enriched uranium for French nuclear submarines,

for weapons and for research reactors such as its controversial sale to Iraq. For the Eurodif project it is providing not only the technology and facilities for training Eurodif's operators, but pre-enrichment of feedstock before it enters Tricastin.

Few nuclear engineers doubt any longer that France has made appreciable advances in the technology of gaseous diffusion since the first plants of this kind were built in the U.S. during and after World War II. Pierrelatte itself has been operating "very satisfactorily for 16 years," says M. Petit.

The big debate about gaseous diffusion has been whether, in a world in which energy prices have been rising rapidly for the past seven or eight years, and promise to continue to do so, the investment in an intrinsically energy-hungry process could be justified.

The alternative—it emerged in the mid-1960s—was the gas centrifuge process, adopted by Britain, West Germany and Holland, which in 1970 embarked on the Urenco project. Urenco claims that it can enrich uranium to the same level—about four times the natural level—for one-tenth or less of the electricity consumed by gaseous diffusion. But the advantage is offset by the capital cost of a more intricate and more highly rated processing unit, the ultra-centrifuge, needed in immensely large numbers to match the capacity of a plant such as Tricastin.

Tricastin has access to some of the cheapest thermal power in the world. Electricité de France, its principal customer for its enrichment, provides it with power for "about 15 centimes per kilowatt-hour" (unit of electricity), says M. Petit. A 3,700 MW nuclear station—four 925 MW pressurised water reactors—is taking shape alongside the factory. According to Electricité de France, its PWRs will produce electricity for 13 centimes per unit, so Eurodif is getting power not much above the cost of generation. If one raises an eyebrow at this situation, Eurodif's managers point out that the French Government last year decreed that everyone close to a nuclear station should have the benefit of cheaper power. They are now charged prices about 15 per cent less than in the country as a whole.

Beyond this, the designers of Tricastin believe they have made cost-saving advances both in the enrichment techniques

and in their methods of operating the process. When in full operation Tricastin will employ only 1,000. It will need only 30 workers per shift to manage the process, with the help of a fleet of bicycles to cover long distances inside the factory, such as the half-mile long concrete corridor connecting the four tranches of enrichment capacity. Normally the central control room will need no more than four people, for the computer checks every stage of the process every 10 seconds. The control room has no dials, only visual display units displaying digital data and curves.

Through this control centre the management can fine-tune the performance of each one of its 1,400 stages of enrichment, adjusting compressor speed and thus the flow of uranium hexafluoride gas through the plant. Just by keeping the plant's behaviour very close to the ideal for the throughput required, M. Petit claims he can save a critical 5 per cent of power costs.

The net result of all this fine-tuning and the awesome scale of its plumbing is that Tricastin can offer enrichment at a competitive price, when there is world overcapacity.

What of France's highly publicised plans to build another enrichment factory of similar size and identical design? Such a scheme, it was argued, would help to amortise investments in special facilities set up for Tricastin, such as the factory making porous membranes and the Socatri plant adjoining Tricastin where steel columns are heavily coated with nickel to protect them against the corrosive uranium gas.

Coredif, as the second enrichment project is called, was set up in 1975 as a completely separate project. Eurodif owns 51 per cent of its shares, Cogema (the State-owned French nuclear fuel company) another 29 per cent, and Irato 20 per cent. But the picture for nuclear power has changed—for Iran in particular, but for the world in general, which is installing new capacity more slowly than forecast in 1973.

Coredif has been shelved. The plant will not be started for another 5-10 years, M. Petit admits. The question then will be whether, given further steep rises in world energy prices, a repeat of the unquestionably energy-hungry Tricastin factory could still compete with the fast-developing gas centrifuge in world markets in the mid-1990s.

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مكتبة النجف

CURRENCIES, MONEY and GOLD

Dollar steady

Trading in currency markets continued to be dull and uneventful yesterday, with little in the way of fresh factors to stimulate any movement. The dollar showed a slightly firmer tendency in early trading, but drifted easier during the afternoon to finish close to its worst level of the day. News that West Germany's key lending rates had been left unchanged helped the Dollar improve slightly, and the dollar closed at DM 1.7945 down from DM 1.7965 on Wednesday. Against the Swiss franc the U.S. unit was marginally firmer at Sfr 1.6540 against Sfr 1.6525 and also showed a slight improvement in terms of the Japanese yen to ¥224.60 from ¥224.05. On Bank of England figures the dollar's trade weighted index was unchanged at 84.7.

Sterling was slightly firmer on a trade weighted basis, and its index finished at 73.6, up from 73.5 on Wednesday, but down from the opening calculation of 73.7. Against the dollar it opened at \$2.3695-2.3705 and eased to \$2.3655 initially, before coming back to \$2.3670 around lunchtime. During the afternoon it touched \$2.3715, but came back to finish unchanged from the opening level at \$2.3695-2.3705, a rise of just 15 points from Wednesday's close.

DMARK—One of the weaker members of the European Monetary System of 10, and showing a tendency to ease against the dollar following the turnaround in U.S. interest rates. In previous months the Bundesbank's monetary policy had been sharp fall in U.S. interest rates led to a decline in the dollar against the German currency. The D-mark was mostly weaker in Frankfurt yesterday, losing ground to the U.S. dollar and sterling, as well as a majority of its EMS partners. The French

franc rose to DM 43.20 per FF 100 from DM 43.18, and the Dutch guilder was higher at DM 91.92 per FF 100 from DM 91.88. Outside the EMS the dollar rose to DM 1.8013 from DM 1.7982 and sterling was higher at DM 4.2630 compared with DM 4.2550 on Wednesday. Unchanged key lending rates and a reduced minimum reserve requirement, which was the result of the latest Bundesbank central bank council meeting, appeared to have little effect on the market.

ITALIAN LIRA—Still the weakest member of the EMS, and under a short time after July's support package. More recently, however, rumours of a possible devaluation have caused further weakness. The lira continued to lose ground in Milan yesterday, edging slowly towards its maximum permitted divergence from the European Currency Unit rate. Trading was generally light, and dealers noted a surplus of payments, although this did not appear to have much effect on the market. The dollar was fixed higher at L.834.05 from L.830.95, and sterling reached a record L.2,022.30 against L.2,015 on Wednesday. Within the EMS the D-mark rose to L.473.90 from L.473.24 and the French franc was higher at L.204.94 against L.204.33 previously.

JAPANESE YEN—Steadier recently, reflecting the relatively successful fight against inflation, which allowed a cut in the discount rate this week, and reflecting also a sharp fall in U.S. interest rates earlier this year. The yen lost a little ground against the U.S. dollar in Tokyo yesterday, with the U.S. unit closing at ¥224.60 compared with ¥224.35 on Wednesday. It opened at ¥224.50 and traded steadily in rather quiet conditions, with nothing in the way of fresh news to stimulate any movement.

EMS EUROPEAN CURRENCY UNIT RATES

Country	ECU	Central bank	% change	% change	Divergence
			from	adjusted	limit
			central	divergence	
Belgian Franc	36.7887	40.4919	+1.79	+0.63	+1.53
Dutch Guilder	7.2236	7.2150	+1.19	+0.08	+1.84
French Franc	5.4786	5.4898	+0.22	+0.23	+1.12
Italian Lira	2.7432	2.7425	+0.38	-0.74	+1.51
Portuguese Escudo	0.000201	0.000201	+0.25	-0.88	+1.68
Spanish Peseta	166.639	166.639	+1.19	+1.19	+4.08

Changes are for ECU, therefore positive change denotes a weak currency. Adjustment calculated by Financial Times.

EXCHANGE CROSS RATES

Aug. 20	Aug. 21	Aug. 22	Aug. 23	Aug. 24	Aug. 25	Aug. 26	Aug. 27	Aug. 28	Aug. 29	Aug. 30	Aug. 31
U.S. Dollar	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
U.S. Dollar	0.422	0.422	0.422	0.422	0.422	0.422	0.422	0.422	0.422	0.422	0.422
U.S. Dollar	0.835	0.835	0.835	0.835	0.835	0.835	0.835	0.835	0.835	0.835	0.835
U.S. Dollar	1.013	1.013	1.013	1.013	1.013	1.013	1.013	1.013	1.013	1.013	1.013
U.S. Dollar	0.856	0.856	0.856	0.856	0.856	0.856	0.856	0.856	0.856	0.856	0.856
U.S. Dollar	0.216	0.216	0.216	0.216	0.216	0.216	0.216	0.216	0.216	0.216	0.216
U.S. Dollar	0.495	0.495	0.495	0.495	0.495	0.495	0.495	0.495	0.495	0.495	0.495
U.S. Dollar	0.864	0.864	0.864	0.864	0.864	0.864	0.864	0.864	0.864	0.864	0.864
U.S. Dollar	1.466	1.466	1.466	1.466	1.466	1.466	1.466	1.466	1.466	1.466	1.466

FT LONDON INTERBANK FIXING (11.00 a.m., AUGUST 21)

5 months U.S. dollars	6 months U.S. dollars	12 months U.S. dollars	3 months U.S. dollars	1 month U.S. dollars	1 week U.S. dollars	1 day U.S. dollars
bid 10 7/8	offer 11	bid 11 1/2	offer 11 5/8	bid 11 1/2	offer 11 5/8	bid 11 1/2

EURO-CURRENCY INTEREST RATES (Market Closing Rates)

Aug. 21	Aug. 22	Aug. 23	Aug. 24	Aug. 25	Aug. 26	Aug. 27	Aug. 28	Aug. 29	Aug. 30	Aug. 31
3 months	12 1/2%	12 1/2%	12 1/2%	12 1/2%	12 1/2%	12 1/2%	12 1/2%	12 1/2%	12 1/2%	12 1/2%
6 months	12 1/2%	12 1/2%	12 1/2%	12 1/2%	12 1/2%	12 1/2%	12 1/2%	12 1/2%	12 1/2%	12 1/2%
12 months	12 1/2%	12 1/2%	12 1/2%	12 1/2%	12 1/2%	12 1/2%	12 1/2%	12 1/2%	12 1/2%	12 1/2%
3 months	12 1/2%	12 1/2%	12 1/2%	12 1/2%	12 1/2%	12 1/2%	12 1/2%	12 1/2%	12 1/2%	12 1/2%
6 months	12 1/2%	12 1/2%	12 1/2%	12 1/2%	12 1/2%	12 1/2%	12 1/2%	12 1/2%	12 1/2%	12 1/2%
12 months	12 1/2%	12 1/2%	12 1/2%	12 1/2%	12 1/2%	12 1/2%	12 1/2%	12 1/2%	12 1/2%	12 1/2%

INTERNATIONAL MONEY MARKET

German rates steady

There was no change in West Germany's key lending rates after yesterday's meeting of the Bundesbank central council, but the authorities increased market liquidity by reducing reserve asset ratios by 10 per cent on domestic and foreign liabilities. This will take effect from September 1, about the same time as funds will be drawn out of the market by tax and security payments, and the repayment of various official money lending facilities. There were no other changes in policy, so the discount rate remains at 7.5 per cent and the Lombard rate at 9.5 per cent. Although the market in general had tended to rule out any change in rates, some dealers thought the authorities may have reduced the Lombard rate by half a point, since call money is still only trading around 3.65 per cent. However this is firmer than the level seen earlier this week, when call money dropped to 7.625 per cent, its lowest since last February. Yesterday call money rose to 8.8-8.7 per cent from 8.3-8.2 on Wednesday. In Paris call money remained at 11 1/2 per cent unchanged from Wednesday, while period rates showed a slightly firmer tendency being quoted at 11-11 1/2 per cent for one to 12-month, compared with 11-11 1/2 per cent previously.

MONEY RATES

NEW YORK	Aug. 21	Aug. 22	Aug. 23	Aug. 24	Aug. 25	Aug. 26	Aug. 27	Aug. 28	Aug. 29	Aug. 30	Aug. 31
Overnight	11-11 1/2	11-11 1/2	11-11 1/2	11-11 1/2	11-11 1/2	11-11 1/2	11-11 1/2	11-11 1/2	11-11 1/2	11-11 1/2	11-11 1/2
3 days	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2
1 month	11-11 1/2	11-11 1/2	11-11 1/2	11-11 1/2	11-11 1/2	11-11 1/2	11-11 1/2	11-11 1/2	11-11 1/2	11-11 1/2	11-11 1/2
3 months	11-11 1/2	11-11 1/2	11-11 1/2	11-11 1/2	11-11 1/2	11-11 1/2	11-11 1/2	11-11 1/2	11-11 1/2	11-11 1/2	11-11 1/2
6 months	11-11 1/2	11-11 1/2	11-11 1/2	11-11 1/2	11-11 1/2	11-11 1/2	11-11 1/2	11-11 1/2	11-11 1/2	11-11 1/2	11-11 1/2
12 months	11-11 1/2	11-11 1/2	11-11 1/2	11-11 1/2	11-11 1/2	11-11 1/2	11-11 1/2	11-11 1/2	11-11 1/2	11-11 1/2	11-11 1/2

GOLD

Firm trend

Gold continued to improve in the London bullion market yesterday, closing \$9 an ounce higher at \$642.45. After opening at \$641.44, the metal tended to drift a little, touching \$636 at one point, before coming back around the opening of U.S. markets. In Frankfurt the 12 1/2 kilo bar was fixed at FF 85,800 per kilo (\$640.11 per ounce) compared with FF 84,800 (\$647.03) in the morning and FF 84,900 (\$634.20) on Wednesday afternoon. In Frankfurt the 12 1/2 kilo bar was fixed at DM 37,180 per kilo (\$641.33 per ounce) against DM 36,140 (\$625.02) previously, and closed at \$644.94 compared with \$633.63 on Wednesday. In Zurich gold finished at \$643.64 against \$633.63 previously.

Aug. 21	Aug. 22	Aug. 23	Aug. 24	Aug. 25	Aug. 26	Aug. 27	Aug. 28	Aug. 29	Aug. 30	Aug. 31
Gold Bullion (785)	642.45	642.45	642.45	642.45	642.45	642.45	642.45	642.45	642.45	642.45
Gold Bullion (785)	642.45	642.45	642.45	642.45	642.45	642.45	642.45	642.45	642.45	642.45
Gold Bullion (785)	642.45	642.45	642.45	642.45	642.45	642.45	642.45	642.45	642.45	642.45
Gold Bullion (785)	642.45	642.45	642.45	642.45	642.45	642.45	642.45	642.45	642.45	642.45
Gold Bullion (785)	642.45	642.45	642.45	642.45	642.45	642.45	642.45	642.45	642.45	642.45
Gold Bullion (785)	642.45	642.45	642.45	642.45	642.45	642.45	642.45	642.45	642.45	642.45

WORLD VALUE OF THE DOLLAR

Bank of America NT & SA, Economics Department, London

The table below gives the rates of exchange for the U.S. dollar against various currencies as of Wednesday, August 20, 1980. The exchange rates listed are middle rates between buying and selling rates as quoted between banks, unless otherwise indicated. All currencies are quoted in foreign currency units per one U.S. dollar except in certain specified areas. All rates quoted are indicative. They are not based on, and are not intended to be used as a basis for, particular transactions. Bank of America NT & SA does not undertake to trade in all listed foreign currencies, and neither Bank of America NT & SA nor the Financial Times assume responsibility for errors.

COUNTRY	CURRENCY	VALUE OF DOLLAR	COUNTRY	CURRENCY	VALUE OF DOLLAR
Algeria	Dinar	4.75	Greenland	Danish Krone	9.3625
Argentina	Peso	16.7	Guatemala	Quetzal	2.00
Australia	Australian \$	0.75	Haiti	Gourde	5.00
Austria	Schilling	13.7603	Honduras	Lempira	5.00
Belgium	Franc	36.36	Hong Kong	Dollar	7.75
Bolivia	Bolivian P.	8.50	Hungary	Forint (10)	2.00
Brazil	Cruzair	200.48	Iceland	I. Krona	49.50
Bulgaria	Lev	10.00	India	Indian Rupee	7.8155
Burkina Faso	CFA Franc	200.48	Indonesia	Rupiah	625.00
Burundi	CFA Franc	200.48	Iran	Rial	2.25
Cameroon	CFA Franc	200.48	Iraq	Iraqi Dinar	0.00033
Canada	Canadian \$	0.75	Israel	Israeli Punt (4)	2.00
Cape Verde	Cape Verde Escudo	200.48	Italy	Lira	2.00
Cayman Islands	Cayman \$	0.75	Jamaica	Jamaican Dollar	1.00
Central Am. Rep.	C.F.A. Franc	200.48	Jordan	Dinar	0.70
Chad	CFA Franc	200.48	Kampuchea	Riel	0.00033
Chile	Chilean P.	80.00	Kenya	Kenya Shilling	0.00033
China	Renminbi Yuan	1.00	Korea (S)	Won	100.00
Colombia	Cop.	200.48	Libya	Libyan Punt	0.00033
Comoros Islands	C.F.A. Franc	200.48	Liechtenstein	Swiss Franc	1.00
Congo (Brazzaville)	C.F.A. Franc	200.48	Luxembourg	Lux Franc	0.00033
Costa Rica	Colon	5.00	Macao	Potaca	0.00033
Cuba	Cuban P.	0.00033	Madagascar	D.R. MG Franc	200.48
Cyprus	Cyprus Pound	0.00033	Malawi	Kwacha	0.00033
Czechoslovakia	Koruna (10)	20.00	Malaysia	Ringgit	0.00033
Dem. Rep. Congo	C.F.A. Franc	200.48	Maldives	Maldivian Rufiyaa	0.00033
Dominican Rep.	Dominican P.	0.00033	Mali	Mal Franc	0.00033
Dominican Rep.	Dominican P.	0.00033	Malta	Maltese Pound	0.00033
Dominican Rep.	Dominican P.	0.00033	Martinique	Local Franc	0.00033
Dominican Rep.	Dominican P.	0.00033	Mauritania	Ouguiya	0.00033
Dominican Rep.	Dominican P.	0.00033	Mauritius	M. Rupee	0.00033
Dominican Rep.	Dominican P.	0.00033	Mexico	Mexican P.	0.00033
Dominican Rep.	Dominican P.	0.00033	Moldavia	Leu	0.00033
Dominican Rep.	Dominican P.	0.00033	Monaco	French Franc	0.00033
Dominican Rep.	Dominican P.	0.00033	Mongolia	Tugrik (10)	0.00033
Dominican Rep.	Dominican P.	0.00033	Morocco	Dirham	0.00033
Dominican Rep.	Dominican P.	0.00033	Mozambique	Moz. Escudo	0.00033
Dominican Rep.	Dominican P.	0.00033	Namibia	Rand	0.00033
Dominican Rep.	Dominican P.	0.00033	Nauru	Aust. \$	0.00033
Dominican Rep.	Dominican P.	0.00033	Nepal	Nepalese Rupee	0.00033
Dominican Rep.	Dominican P.	0.00033	Netherlands	Dutch Guilder	0.00033
Dominican Rep.	Dominican P.	0.00033	Nicaragua	Corдобa	0.00033
Dominican Rep.	Dominican P.	0.00033	Niger	CFA Franc	200.48
Dominican Rep.	Dominican P.	0.00033	Nigeria	Naira (10)	0.00033
Dominican Rep.	Dominican P.	0.00033	Norway	Norw. g. Krona	0.00033
Dominican Rep.	Dominican P.	0.00033	Oman, Sultanate of	Rial Omani	0.00033
Dominican Rep.	Dominican P.	0.00033	Pakistan	Pkt. Rupee	0.00033
Dominican Rep.	Dominican P.	0.00033	Panama	Balboa	0.00033

n.a. Not available. * U.S. dollars per National Currency unit. (D) Official rate, (C) Commercial rate, (F) Financial rate.
(1) Sudan—Official rate for specified exports and imports. (2) Sudan—Official rate for all transactions except specified exports and imports.
(3) Egypt—A different rate applies to certain transactions with non-IMF countries.
(4) Israeli Government is changing its currency to Sheqel. However dealers may be currently quoting in pounds.
(5) New Hebrides Independence 30/7/80 now named Vanuatu.

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CHALLENGE CORPORATION
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Preliminary unaudited results for the year ended 30 June 1980

	NZ\$5000's 21,545	NZ\$5000's 22,012
GROUP TRADING INCOME (including dividends from associated companies)		
LESS Taxation	7,973	
Trading Income After Tax	13,572	
Profit arising from disposal of surplus assets	7,033	
Net Tax Paid Income	20,605	
LESS Amounts attributable to minority interests	150	
Group Share of Tax Paid Income Group Share of Profits of Asso- ciated Companies (net of divi- dends received)	20,455	
	2,857	
Net Income Attributable to Group	23,312	
LESS Prior period adjustment (reduction of retained earnings of Heywrights Limited)	835	
	<u>22,477</u>	
APPROPRIATIONS	1980	1979
Interim Ordinary Dividend	2,554	1,826
Final Ordinary Dividend	4,014	2,738
	6,568	4,564
To capital reserves	5,169	2,387
Retained profits	19,749	9,097
	<u>22,477</u>	

Companies and Markets

LONDON STOCK EXCHANGE

Institutional demand leads to broad-based advance

All-share index at all-time high and 30-share gains 6.2

Account Dealing Dates
Options
*First Declared Last Account
Dealings Date Dealings Day
Aug. 11 Aug. 28 Aug. 29 Sept. 8
Sept. 1 Sept. 11 Sept. 12 Sept. 22
Sept. 25 Sept. 26 Sept. 26 Oct. 6

Further selective institutional buying had a marked effect in equity markets yesterday and took the FT-actuarial All-share index up one per cent to 289.14 — its highest since compilation. The Industrial Group index put on 1.3 per cent to 257.83, its highest since May 15 last year when it was receding from its all-time high of 273.01 recorded a couple of weeks earlier.

Electricals and Stores were prominent in the rise, although the former ended below the best in places on profit-taking. The FT 30-share index made progress throughout the session and ended at the day's best with a rise of 6.2 for a two-day gain of 9.8 to 497.9; this compares with the 1980 peak of 503.1 recorded in the middle of last month.

A lengthy list of trading statements created a reasonable amount of interest. Of the higher concerns, Shell held steady to firm and Barclays made progress on satisfactory half-yearly statements. Against the trend, ICI gave ground following reports that analysts had revised the second-quarter figures which are due to be announced next week.

Many of the day's rises reached double figures and were again accentuated by stock shortage, but there was little sign of any increase in gain on the activity with total bargains remaining around the recently depressed level of just over 17,000.

Barclays satisfy
British Funds also made headway, albeit on a rather modest scale. Business here remained at a low level, but after fluctuating narrowly medium and long ended with rises of 1 and some times a little more, while shorts recorded gains extending to 1.5. The seasonally adjusted Public Borrowing Requirement had little impact on sentiment.

The overnight U.S. strength of the metal and gold shares off to a firm start and the Gold Mines index gained 11.2 for a three-day advance of 20.5 to a five-year high of 324.0. This responded to selective buying and Australian mining shares moved up in the wake of Sydney advances.

The firmer tone in equities was reflected in traded options which attracted 1,465 deals, the highest total for nearly a month. Seven positions attracted a three-figure trade and the more active included Lomho, 218, Imperial, 273, and Rascal, 172.

The disappointing clearing bank dividend season was brought to a more satisfactory conclusion than expected by Barclays, which rose 5 to 429.1 in response to the 13 per cent first-half profit increase. Lloyds, 315p, and Midland, 335p, improved similarly in sympathy. Merchant banks met with selective support and closed firmer throughout. Hamlyn gained 10 to 558p, as did Hill Samuel, 147p, while Kleinwort Benson put on 6 to 294p and Guinness Peat 5 to 131p.

Insurance failed to sustain the previous day's buoyancy. However, Pearl rose 4 to 235p, making a gain on the week so far of 30 to 426p ahead of next Wednesday's interim results. Equity and Law added 8 to 328p and Legal and General 3 to 227p.

Leading Breweries came in for scattered support; must finished a shade below the day's best, but closing gains still ranged to 9. Greenall Whitely were marked that much higher at 320p, while Bass picked up a couple of pence to 236p, after 235p.

Harris Queensway up

Gains in Buildings were sometimes exaggerated by stock shortage. BPE rose 7 to 235p, Redland 6 to 189p peak of 189p, and Tarmac 4 to 280p. Among Cements, Tunnel B stood out with a gain of 10 to 232p, after 234p, while Ready Mixed Cement closed 2 pence at 189p, after 187p. F. J. C. Liley added 2 to a 198p peak of 89p on news of contracts worth 17m, while William Whitbaiting put on 3 to 115p reflecting higher interim profits.

Among Housebuilders, William Leech added 4 to 67p. Press common to the Paints industry directed attention towards Wanders which added 4 to 152p.

ICI shed 6 to 362p as analysts downgraded their profit estimates for the second-quarter figures due next Thursday. Stores closed with gains, although the level of business still left much to be desired. Gossies A rose 6 more in 463p and UDS 2 to 71p after the announcement of the deal involving the latter's mail order subsidiary, John Myers. Mothercare improved 5 to 250p. Secondary issues were featured by Harris Queensway, 10 better at 155p, while mail-orders also finished

firm: Freemans rose 6 to 132p, while Gratian, 88p, and Empire, 170p, added 4 apiece. Higher preliminary profits and dividends helped A. J. Gelfer, and R. and J. Pullman, both 2 better at the common price of 45p.

Electricals continued to make strong progress with double-figure gains commonplace; most rises were exacerbated by stock shortage. Having risen to 500p late on Wednesday, GEC continued to improve and touched 511p before settling for a gain of 10 to 508p. Thorn EMI jumped 10 to 384p, while Rascal firmed 6 to 291p. Plessey moved against

the bullish tenor of the statement which accompanied details of the proposed £2m rights issue. Mining Supplies added 9 to 146p on renewed speculative support and Saville Gordon hardened 2 to 37p following the results. B. Elliott, 262p, Jones and Shipman, 83p, and Martindale, 203p, all rose 6. By way of contrast, Westwood Daves fell 6 to 26p on the late afternoon dividend omission and first-half profit setback.

Reckitt wanted

Leading Funds made an impressive showing as renewed support, some of which was insti-

tutional, found the market short of stock. The prospect of a higher commodity price again directed attention toward sugar shares where Tate and Lyle put on 8 for a two-day gain of 12 to a 198p peak of 162p, and British Sugar rose 8 to 263p. Food Retailers were led higher by J. Sainsbury, another 12 to the grand 460p, after 470p. Associated Dairies gained 5 to 208p and Laidlaw 5 to 155p, while Tesco hardened 4 to 574p.

Associated British Foods and Northern put on 3 apiece to 120p and 145p respectively, while Rowntree Macintosh revived with a gain of 8 at 160p. Elsewhere, Neuders improved 14 to 241p despite the interim profits setback.

Among Hotels and Caterers, Queens Hotel House added 3 to 37p following Press comment, while late support lifted recently neglected Brent Walker 4 to 67p.

Investment demand in a market none too well supplied

with stock left closing improvements ranging to 12 in the miscellaneous industrial leaders. Ahead of the interim results, due next month, Reckitt and Cimlam rose 12 to 214p, while Boots continued to make good progress and closed 7 up at 241p. Metal Box was also notable at 289p, up 8, News of the proposed redundancies at its paper subsidiary's works at Aylesford had an adverse effect on Reed International which hardened 3 to 202p. Elsewhere, buying on hopes of good interim profits when the company report next month left BTR 13 to the good at 335p, after 335p, while De La Rue jumped 30 to 825p in share-sharpening hopes.

Hongkong and Kowloon Wharf rose 35 to 730p, after 750p, on the announcement that shipping magnate and major shareholder Sir Y. K. Pao is to replace Mr. David Newbould as chairman. Speculative buying was evident in Booker McConnell, 4 dearer at 55p and Girders, 5 harder at 169p, while J. Bibby gained 4 more to 214p. H. Branner improved 4 to 151p helped by the announcement that the Prudential now hold a 7 per cent stake.

Horizon Travel, a good market since the interim results, added 5 more to 300p to a thin market, while Saga closed 2 firmer at 180p, after 181p. Elsewhere, Herrburger Brooks hardened a penny to 474p on reports of results. Television issues featured LWTW which put on 6 to 109p.

Among firmer Motor Components, Dowry rose 8 to 249p, while Flight Refuelling, dual of late on profit-taking, rallied 5 to 240p.

A reasonable business was transacted in Properties, but gains were modest. Among the leaders, Land Securities and MEPC added 3 apiece to 369p and 239p respectively. Elsewhere, Property Security Investment picked up 5 to 223p.

Lasmo down afresh

Shell and Lasmo provided the main points in Oils. The former firmed 4 to 424p on satisfaction with the second-quarter figures, but the latter, a volatile market since last Tuesday's interim, shed 20 to 680p, after 675p, on reports of a dry well in the Tiffney Field. British Petroleum moved narrowly before settling a couple of pence firmer on balance at 354p. Elsewhere, Ultramar remained on offer and shed 4 further to 215p, while B.P. 200p, after 200p, on profit-taking. Charterhouse attracted a good business and

ended 12 up at 238p, North Kalgar 3 firmer at 90p, Allstate 5 higher at 35p and Hill 5 Gold 5 better at 45p.

The Ashton stocks attracted persistent support following rumours of further, diamond finds. Ashton Mining jumped 12

to 160p, Northern Mining 10 to 140p and CRA a like amount to 310p.

Among the leading base-metal stocks, Western Mining gained 9 to a 198p high of 310p. Tins came in for fresh local demand amid continuing speculation that additional managers are in the pipeline. Copeng, the

biggest gainer in the recent surge in share prices, put on 10 to 650p, while Ayrer Hiram advanced 30 to 370p. Berrington 10 to 265p, Trenchard a like amount to 345p and Idris 5 to 129p.

In Coppers, ZCL hardened 2 more to 43p, but the sharp contraction in first-quarter profits depressed RCM by 20 to 170p.

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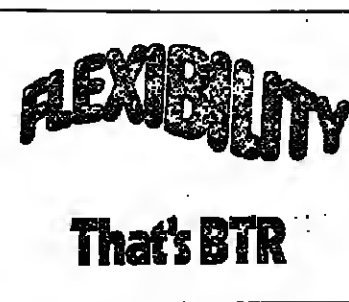
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FT SHARE INFORMATION SERVICE

LOANS

1980	Low	High	Stock	Price	Yield	Div	Yield
Public Board and Ind.							
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield

BRITISH FUNDS

1980	Low	High	Stock	Price	Yield	Div	Yield
"Shorts" (Lives up to Five Years)							
1980	Low	High	Stock	Price <td>Yield</td> <td>Div</td> <td>Yield</td>	Yield	Div	Yield
1980	Low	High	Stock	Price <td>Yield</td> <td>Div</td> <td>Yield</td>	Yield	Div	Yield

Five to Fifteen Years

1980	Low	High	Stock	Price	Yield	Div	Yield
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1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	

Over Fifteen Years

1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	67%	Treasury	12-29-80	100%	14.12	12.92
1980	6					

Undated

INTERNATIONAL BANK							
5/71	78	1pc	Stock 77-82	85 1/4	1 1/4	5.83	13.33
CORPORATION LOANS							
97 1/4	83 1/2	Bath 11 1/2pc 1985	94 1/2	12 1/2	13 1/2	13 1/2	13 1/2
97 1/4	83 1/2	Barnhart 12 1/2pc 1983	94 1/2	12 1/2	13 1/2	13 1/2	13 1/2
97 1/4	83 1/2	Barnhart 12 1/2pc 1983	94 1/2	12 1/2	13 1/2	13 1/2	13 1/2
101 1/4	99	Burns 13pc 1987	98 1/2	13 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13 1/2	13 1/2	13 1/2
95 1/4	80 1/2	Cardinal 13pc 1986	92 1/2	12 1/2	13		

INTERNATIONAL BANK

57 1/2	78	1pc Stock 77-82	85 1/4	1 1/4	5.83	23.3
CORPORATION LOANS						
97 1/4	83 1/2	Bath 12-94 1985	94 1/2	12.29	13.5
96 1/4	89 1/4	Blm 12-94 1985	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
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95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
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95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
95 1/4	89 1/4	Birney 12-94 1981	94 1/2	13.08	13.5
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COMMONWEALTH AND AFRICAN LOANS

AFRICAN LOANS							
97	52 1/2	Aust. Slap 81-82	89 1/2	+ 1/2	6.29	14.5	
85 1/2	75 1/2	Do. 6pc 1981-85	87 1/2	+ 1/2	7.28	12.5	
58	62	N.Z. 7 1/2pc 1988-92	65	+ 1/2	11.32	13.7	
61 1/2	72	Do. 7 1/2pc 83-88	79 1/2	9.53	12.3	
96 1/2	88	Sth. Afr. 5pc 79-81	96	- 1/2	10.20	15.8	
96 1/2	91	S. Rhod. 2 1/2pc Non-Ass.	97	10.35	15.3	
169	133	Do. 6pc 79-81 N.-As.	142	+ 2	29.9	

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BANKS AND HIRE PURCHASE

1980	Low	High	Stock	Price	% of	Div. Amt.	CY '80	Yield
245	202	247	AMT. S&P	240	+1.32	16.22	3.7	4.7
288	282	293	American D. EL	290	+1.0	12.0	8.8	8.8
288	282	293	American F1,200	290	+1.0	12.0	8.8	8.8
288	282	293	Algonquin P. 100	290	+1.0	12.0	8.8	8.8
288	282	293	Algonquin P. 100	290	+1.0	12.0	8.8	8.8
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288	282	293	Algonquin P. 100	290	+1.0	12.0	8.8	8.8
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BUILDING INDUSTRY—Contd.

1980	Low	Stock	Price	Yield	Div	Yield
19	15	Wrigley Cos. 10c	24	11.9	24	11.9
15	15	Wyckoff Comm.	100	6.9	3.6	3.6
15	15	Wimpey (Geo.)	87	2.25	4.8	3.7

CHEMICALS, PLASTICS

473	107	Alcon Pl. 20	475	0.124	4.1	2.6
30	30	Alcon Pl. 20	475	0.124	4.1	2.6
32	32	Anchor Chem.	83	0.1	1.1	1.1
30	30	Anchor Chem.	83	0.1	1.1	1.1
30	30	Amoco Chemicals	30	0.53	1.1	1.1
30	30	Amoco Chemicals	30	0.53	1.1	1.1
30	30	Amoco Chemicals	30	0.53	1.1	1.1
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30	30	Amoco Chemicals	30	0.53	1.1	1.1
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30	30	Amoco Chemicals	30	0.53	1.1	1.1
30	30	Amoco Chemicals	30	0.53	1.1	1.1
30	30	Amoco Chemicals	30	0.53	1.1	1.1
30	30	Amoco Chemicals	30	0.53	1.1	1.1
30	30	Amoco Chemicals	30	0.53	1.1	1.1
30	30	Amoco Chemicals	30	0.53	1.1	1.1
30	30	Amoco Chemicals	30	0.53	1.1	1.1
30	30	Amoco Chemicals	30	0.53	1.1	1.1
30	30	Amoco Chemicals	30	0.53	1.1	1.1
30	30	Amoco Chemicals	30	0.53	1.1	1.1
30	30	Amoco Chemicals	30	0.53	1.1	1.1
30	30	Amoco Chemicals	30	0.53	1.1	1.1
30	30	Amoco Chemicals	30	0.53	1.1	1.1
30	30	Amoco Chemicals	30	0.53	1.1	1.1
30	30	Amoco Chemicals	30	0.53	1.1	1.1
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30	30	Amoco Chemicals	30	0.53	1.1	1.1
30	30	Amoco Chemicals	30	0.53	1.1	1.1
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30	30	Amoco Chemicals	30	0.53	1.1	1.1
30	30	Amoco Chemicals	30	0.53	1.1	1.1
30	30	Amoco Chemicals	30	0.53	1.1	1.1
30	30	Amoco Chemicals	30	0.53	1.1	1.1
30	30	Amoco Chemicals	30	0.53	1.1	1.1
30	30	Amoco Chemicals	30	0.53	1.1	1.1
30	30	Amoco Chemicals	30	0.53	1.1	1.1
30	30	Amoco Chemicals	30	0.53	1.1	1.1
30	30	Amoco Chemicals	30	0.53	1.1	1.1
30	30	Amoco Chemicals	30	0.53	1.1	1.1
30	30	Amoco Chemicals	30	0.53	1.1	1.1
30	30	Amoco Chemicals	30	0.53	1.1	1.1
30	30	Amoco Chemicals	30	0.53	1.1	1.1
30	30	Amoco Chemicals	30	0.53	1.1	1.1
30	30	Amoco Chemicals	30	0.53	1.1	1.1
30	30	Amoco Chemicals	30	0.53	1.1	1.1
30	30	Amoco Chemicals	30	0.53	1.1	1.1
30	30	Amoco Chemicals	30	0.53	1.1	1.1
30	30	Amoco Chemicals	30	0.53	1.1	1.1
30	30	Amoco Chemicals	30	0.53	1.1	1.1
30	30	Amoco Chemicals	30	0.53	1.1	1.1
30	30	Amoco Chemicals	30	0.53	1.1	1.1
30	30	Amoco Chemicals	30	0.53	1.1	1.

ELECTRICALS—Continued

High	Low	Stock	Price	Yield	Div	Yield
127	104	Thrice F. W. 10p	120	+22	12.22	4.6
127	104	Unicom 20p	120	+22	12.22	4.6
127	104	Unicom 20p	120	+22	12.22	4.6
127	104	Unicom 20p	120	+22	12.22	4.6
127	104	Unicom 20p	120	+22	12.22	4.6
127	104	Unicom 20p	120	+22	12.22	4.6
127	104	Unicom 20p	120	+22	12.22	4.6
127	104	Unicom 20p	120	+22	12.22	4.6
127	104	Unicom 20p	120	+22	12.22	4.6
127	104	Unicom 20p	120	+22	12.22	4.6
127	104	Unicom 20p	120	+22	12.22	4.6
127	104	Unicom 20p	120	+22	12.22	4.6
127	104	Unicom 20p	120	+22	12.22	4.6
127	104	Unicom 20p	120	+22	12.22	4.6
127	104	Unicom 20p	120	+22	12.22	4.6
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127	104	Unicom 20p	120	+22	12.22	4.6
127	104	Unicom 20p	120	+22	12.22	4.6
127	104	Unicom 20p	120	+22	12.22	4.6
127	104	Unicom 20p	120	+22	12.22	4.6
127	104	Unicom 2				

CHEMICALS, PLASTICS

72	42	10	Stearns KO Sp	24	1	20.5	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
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ENGINEERING MACHINE TOOLS

1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
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1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price			

DRAPERY AND STORES

84	Co. Inc. N.Y. Div.	84	84	82	37	4	82	37
85	Unicomp H. 20p	85	84	85	37	1	85	37
86	Unicomp H. 20p	86	84	85	37	1	85	37
87	Unicomp H. 20p	87	84	85	37	1	85	37
88	NFI Furniture 10p	88	84	85	37	1	85	37
89	NFI Furniture 10p	89	84	85	37	1	85	37
90	NFI Furniture 10p	90	84	85	37	1	85	37
91	NFI Furniture 10p	91	84	85	37	1	85	37
92	NFI Furniture 10p	92	84	85	37	1	85	37
93	NFI Furniture 10p	93	84	85	37	1	85	37
94	NFI Furniture 10p	94	84	85	37	1	85	37
95	NFI Furniture 10p	95	84	85	37	1	85	37
96	NFI Furniture 10p	96	84	85	37	1	85	37
97	NFI Furniture 10p	97	84	85	37	1	85	37
98	NFI Furniture 10p	98	84	85	37	1	85	37
99	NFI Furniture 10p	99	84	85	37	1	85	37
100	NFI Furniture 10p	100	84	85	37	1	85	37
101	NFI Furniture 10p	101	84	85	37	1	85	37
102	NFI Furniture 10p	102	84	85	37	1	85	37
103	NFI Furniture 10p	103	84	85	37	1	85	37
104	NFI Furniture 10p	104	84	85	37	1	85	37
105	NFI Furniture 10p	105	84	85	37	1	85	37
106	NFI Furniture 10p	106	84	85	37	1	85	37
107	NFI Furniture 10p	107	84	85	37	1	85	37
108	NFI Furniture 10p	108	84	85	37	1	85	37
109	NFI Furniture 10p	109	84	85	37	1	85	37
110	NFI Furniture 10p	110	84	85	37	1	85	37
111	NFI Furniture 10p	111	84	85	37	1	85	37
112	NFI Furniture 10p	112	84	85	37	1	85	37
113	NFI Furniture 10p	113	84	85	37	1	85	37
114	NFI Furniture 10p	114	84	85	37	1	85	37
115	NFI Furniture 10p	115	84	85	37	1	85	37
116	NFI Furniture 10p	116	84	85	37	1	85	37
117	NFI Furniture 10p	117	84	85	37	1	85	37
118	NFI Furniture 10p	118	84	85	37	1	85	37
119	NFI Furniture 10p	119	84	85	37	1	85	37
120	NFI Furniture 10p	120	84	85	37	1	85	37
121	NFI Furniture 10p	121	84	85	37	1	85	37
122	NFI Furniture 10p	122	84	85	37	1	85	37
123	NFI Furniture 10p	123	84	85	37	1	85	37
124	NFI Furniture 10p	124	84	85	37	1	85	37
125	NFI Furniture 10p	125	84	85	37	1	85	37
126	NFI Furniture 10p	126	84	85	37	1	85	37
127	NFI Furniture 10p	127	84	85	37	1	85	37
128	NFI Furniture 10p	128	84	85	37	1	85	37
129	NFI Furniture 10p	129	84	85	37	1	85	37
130	NFI Furniture 10p	130	84	85	37	1	85	37
131	NFI Furniture 10p	131	84	85	37	1	85	37
132	NFI Furniture 10p	132	84	85	37	1	85	37
133	NFI Furniture 10p	133	84	85	37	1	85	37
134	NFI Furniture 10p	134	84	85	37	1	85	37
135	NFI Furniture 10p	135	84	85	37	1	85	37
136	NFI Furniture 10p	136	84	85	37	1	85	37
137	NFI Furniture 10p	137	84	85	37	1	85	37
138	NFI Furniture 10p	138	84	85	37	1	85	37
139	NFI Furniture 10p	139	84	85	37	1	85	37
140	NFI Furniture 10p	140	84	85	37	1	85	37
141	NFI Furniture 10p	141	84	85	37	1	85	37
142	NFI Furniture 10p	142	84	85	37	1	85	37
143	NFI Furniture 10p	143	84	85	37	1	85	37
144	NFI Furniture 10p	144	84	85	37	1	85	37
145	NFI Furniture 10p	145	84	85	37	1	85	37
146	NFI Furniture 10p	146	84	85	37	1	85	37
147	NFI Furniture 10p	147	84	85	37	1	85	37
148	NFI Furniture 10p	148	84	85	37	1	85	37
149	NFI Furniture 10p	149	84	85	37	1	85	37
150	NFI Furniture 10p	150	84	85	37	1	85	37
151	NFI Furniture 10p	151	84	85	37	1	85	37
152	NFI Furniture 10p	152	84	85	37	1	85	37
153	NFI Furniture 10p	153	84	85	37	1	85	37
154	NFI Furniture 10p	154	84	85	37	1	85	37
155	NFI Furniture 10p	155	84	85	37	1	85	37
156	NFI Furniture 10p	156	84	85	37	1	85	37
157	NFI Furniture 10p	157	84	85	37	1	85	37
158	NFI Furniture 10p	158	84	85	37	1	85	37
159	NFI Furniture 10p	159	84	85	37	1	85	37
160	NFI Furniture 10p	160	84	85	37	1	85	37
161	NFI Furniture 10p	161	84	85	37	1	85	37
162	NFI Furniture 10p	162	84	85	37	1	85	37
163	NFI Furniture 10p	163	84	85	37	1	85	37
164	NFI Furniture 10p	164	84	85	37	1	85	37
165	NFI Furniture 10p	165	84	85	37	1	85	37
166	NFI Furniture 10p	166	84	85	37	1	85	37
167	NFI Furniture 10p	167	84	85	37	1	85	37
168	NFI Furniture 10p	168	84	85	37	1	85	37
169	NFI Furniture 10p	169	84	85	37	1	85	37
170	NFI Furniture 10p	170	84	85	37	1	85	37
171	NFI Furniture 10p	171	84	85	37	1	85	37
172	NFI Furniture 10p	172	84	85	37	1	85	37
173	NFI Furniture 10p	173	84	85	37	1	85	37
174	NFI Furniture 10p	174	84	85	37	1	85	37
175	NFI Furniture 10p	175	84	85	37	1	85	37
176	NFI Furniture 10p	176	84	85	37	1	85	37
177	NFI Furniture 10p	177	84	85	37	1	85	37
178	NFI Furniture 10p	178	84	85	37	1	85	37
179	NFI Furniture 10p	179	84	85	37	1	85	37
180	NFI Furniture 10p	180	84	85	37	1	85	37
181	NFI Furniture 10p	181	84	85	37	1	85	37
182	NFI Furniture 10p	182	84	85	37	1	85	37
183	NFI Furniture 10p	183	84	85	37	1	85	37
184	NFI Furniture 10p	184	84	85	37	1	85	37
185	NFI Furniture 10p	185	84	85	37	1	85	37
186	NFI Furniture 10p	186	84	85	37	1	85	37
187	NFI Furniture 10p	187	84	85	37	1	85	37
188	NFI Furniture 10p	188	84	85	37	1	85	37
189	NFI Furniture 10p	189	84	85	37	1	85	37
190	NFI Furniture 10p	190	84	85	37	1	85	37
191	NFI Furniture 10p	191	84	85	37	1	85	37
192	NFI Furniture 10p	192	84	85	37	1	85	37
193	NFI Furniture 10p	193	84	85	37	1	85	37
194	NFI Furniture 10p	194	84	85	37	1	85	37
195	NFI Furniture 10p	195	84	85	37	1	85	37
196	NFI Furniture 10p	196	84	85	37	1	85	37
197	NFI Furniture 10p	197	84	85	37	1	85	37
198	NFI Furniture 10p	198	84	85	37	1	85	37
199	NFI Furniture 10p	199	84	85	37	1	85	37
200	NFI Furniture 10p	200	84	85	37	1	85	37

BEERS, WINES AND SPIRITS

1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price <td>Yield</td> <td>Div</td> <td>Yield</td>	Yield	Div	Yield
1980	Low	High	Stock	Price <td>Yield</td> <td>Div</td> <td>Yield</td>	Yield	Div	Yield

BUILDING INDUSTRY, TIMBER AND ROADS

1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
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1980	Low	High	Stock	Price	Yield	Div	Yield
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1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
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1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
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1980	Low	High	Stock	Price	Yield	Div	Yield
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1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
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1980	Low	High	Stock	Price	Yield	Div	Yield
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1980	Low	High	Stock	Price	Yield	Div	Yield
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1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
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1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
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1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
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1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price	Yield	Div	Yield
1980	Low	High	Stock	Price			

ELECTRICALS

31	60	100	Richmond	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	10
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HOTELS AND CATERERS

78	56	21	Brent Water 10p	67	14	3	37
78	284	51	Comwell Int. 10p	27	14	1.75	40
20	150	20	De Vere Hotels 10p	17	12	1.50	40
20	150	20	Galaxy 5p	17	12	1.50	40
167	120	60	Grand Mtn. 50p	172	12	16.0	41
88	65	10	Wanderer 10p	10	10	1.50	41
100	100	100	Wentworth 10p	10	10	1.50	41
100	100	100	Wentworth 10p	10	10	1.50	41
254	19	10	Mt. Charlotte 10p	35	12	1.50	41
44	35	3	Norfolk Can 5p	35	12	1.50	41
100	100	100	Norfolk Can 5p	35	12	1.50	41
9	58	10	Prince of Wales	73	12	1.50	41
374	204	204	Queen's Mount 5p	73	12	1.50	41
175	149	149	Reynolds 10p	73	12	1.50	41
100	100	100	Reynolds 10p	73	12	1.50	41
99	100	100	Savoy "A" 10p	126	11	1.15	53
99	100	100	Savoy "A" 10p	126	11	1.15	53
99	100	100	Stations (Rate) 10p	49	11	1.17	53
40	150	150	Transoceanic 10p	49	11	1.17	53
40	150	150	Transoceanic 10p	49	11	1.17	53
200	200	200	Wheeler's 10p	255	11	3.88	53

INDUSTRIALS (Miscel)

1975	116	116	A.A.I. Inc.	120	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116
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FOOD, GROCERIES, ETC.

80	Alpine Slope T 10p	96	7.7	11.5	
35	Argyll Foods Sp	59	+1	—	—
73	Ass. Biscuits 20p	88	4.4	7.9	4.0
75	Ass. Brit. Fds. Sp	120	1.3	2.1	1.0
140	Ass. Brit. Fds. Sp	120	1.3	2.1	1.0
34	Ass. Fisheries Sp	77	2	6.5	4.0
92	Avensa Group Sp	37.6	+1	5.0	4.0
109	Banks (Soley) C	140	1.03	7.4	4.0
30	Barker & D. 20p	140	4.25	5.5	4.0
109	Barri (A.C.) C	145	4.25	5.5	4.0
30	Barrow Milling	42	0.63	4.1	4.0
30	Barnett (Gen.) C	43	1.73	5.4	4.0
145	Bell & Co. 20p	84	2.17	3.8	3.7
95	Bejan 10p	84	2.17	3.8	3.7
145	Bishop's Stores	255	4.0	4.0	4.0
98	Do. "A" NVs.	98	4.0	4.0	4.0

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FINANCIAL TIMES

Friday August 22 1980

BELL'S
SCOTCH WHISKY
BELL'S

GEC AND VICKERS WILL PRESS FOR CHANGE IN ACT

BAC compensation of £95m agreed

BY MICHAEL DONNE, AEROSPACE CORRESPONDENT

GEC and Vickers, the original shareholders in the new nationalised British Aircraft Corporation (Holdings), have accepted compensation totalling £95m for their quoted securities in that organisation. But they are expected to press for more, either through the UK Government or the European Court of Justice.

The compensation, of which £40m has already been paid on account, was announced jointly yesterday by the Department of Industry and Mr. P. J. Grant of Lazard Brothers, the shareholders' representative.

The companies remain dissatisfied with the compensation because it is based on

average share values in the six months up to February 28, 1974, whereas actual vesting day was April 1, 1977. On that day, BAC (Holdings) became part of British Aerospace.

In the intervening time, the profits of British Aircraft Corporation had multiplied several times and, the companies claim, the value of BAC on vesting day was closer to £250m than the £95m now being paid.

Despite vigorous protests by GEC and Vickers over the past few years, they have not been able to persuade either Labour or Conservative Governments to change the aircraft and shipbuilding nationalisation Act.

Earlier this month, Sir Keith Joseph, Industry Secre-

tary, told the Commons that the Government had come "to the most reluctant conclusion that there is no satisfactory way to alter the 1977 compensation terms."

He said that while the Government had explored every possibility of righting the injustice done to shareholders by the previous Government, "to our very great regret we have concluded that amending legislation to establish new compensation terms retrospectively would be unjust to the many people who sold shares on the basis of the previous terms."

Sir Peter Matthews, chairman of Vickers, said yesterday: "We have accepted the settlement announced because we have been advised that this is the best we can

achieve within the terms of the existing Act."

We believe that there is a growing awareness in the minds of our stockholders, the public and Parliament that the Act itself is unfair and this is reflected in the press.

"A reasonable valuation of the business at the time of vesting would have been of the order of twice the sum announced today."

"Our acceptance of this settlement has been made without prejudice to our right to continue to seek to persuade the Government to amend the Act and to say additional sums that may thereby become payable."

A statement from GEC, whose wholly-owned subsidiary, English Electric, was the shareholder in BAC

(Holdings), said it was accepting the compensation only for want of a better alternative. But GEC intended to seek the fair compensation to which it was entitled in accordance with international standards and obtain redress to "right the injustice" done by the original nationalisation Act.

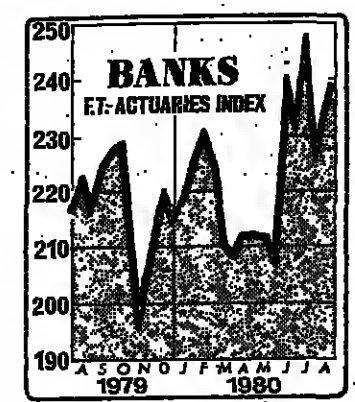
"It is a plain fact that the basis of compensation for GEC's shareholding in BA is not in accordance with the international standards to which the Government professes to subscribe."

Last year the Government made its final offer for Vickers' nationalised warship building interests but the company was unable to accept the terms. The matter has been referred to arbitration.

THE LEX COLUMN

Shell rides out the oil glut

Index rose 6.2 to 474.5



Through seas littered with slow-steaming supertankers, Shell continues its majestic progress. Second-quarter net income, £680m against £710m as reported, comes out at £440m against £373m after stock and currency items, and for the first half there is a 15 per cent underlying increase to £908m.

This is a fine performance at a time when demand is falling steeply — by 3 per cent overall in the first half for the non-Communist world. Shell reckons. Essentially, the group is still thriving upstream, where prices are much higher than a year ago, and its North American domestic businesses are very strong. Higher gas prices have made up for a volume fall, and in the difficult markets for refined products, Shell has managed to pass on its costs. By shedding unprofitable market share (its volume product sales were 7 per cent down in the second quarter) it has greatly reduced the need for spot market purchases.

The only really weak point is chemicals, where the group must now be making losses outside North America — unfortunately, Shell does not feel that it need disclose interim earnings figures for a business with a mere £340m of annual sales. One problem in the chemical market has been customer destocking, which may spread to oil products now that the level of world oil stocks — an unprecedented 50n barrels — and the continuing surplus of supply over demand are reducing fears of shortage.

Against this, however, the group will benefit from the steady raising of gas prices in Europe and Japan, and it may turn in an underlying £1.8bn (against £1.6bn) for the year. There is plenty more to come next year from further gas price rises, the North Sea and the U.S., and Shell has exceptional defensive strengths at a time of weakness in the oil markets. At 42p the shares trade at about 63 times underlying earnings and yield a prospective 7 per cent.

Barclays Bank

Barclays' pre-tax profits of £279.1m at the halfway stage follow the pattern set by Natwest and Lloyds, with a gain of 131 per cent over the same period in 1979, but a slight decline from the peak of the previous six months. As in the case of Midland and Natwest, there has been a sharp rise in bad debt provisions — from £26.6m to £64.4m — as the bank suddenly discovers a host of

dubious accounts. Certainly overdrafts have risen over the half year, from about 55 per cent of limits to 62 per cent. And although the bank says it will do all it can for its customers in these difficult times, so far in 1980 it has turned to the Receiver just as much as everybody else.

The changeover from current to deposit accounts may have cost Barclays about £20m, but the switch seems to have been smaller than that experienced by the other clearers. Meanwhile, the international arm has continued to expand, helped by a 15 per cent gain in South Africa compared with the second half of 1979, an increase in the Eurodollar book and strong foreign exchange business as UK residents have taken advantage of the abolition of exchange controls.

With costs likely to be about 25 per cent higher this year compared with 1979, pre-tax profits may emerge in the region of £500m, against £529.4m. The share price rose 5p yesterday to £25p, producing a prospective p/e of about 51, fully-taxed, and a yield of maybe 64 per cent. This makes it the most highly rated of the clearers, presumably because of the market's belief in the insulation against a fall in interest rates provided by Mercantile, Barclaycard and the international operation.

GUS/Myers

John Myers is one of the less happy relics of UDS's bidding rampage in the early 1970s: it cost £104m in 1971 money, and is not profitable. Now GUS is to acquire its mail order agents and debts, which could be around £15m, plus certain of its trading names. The purchase price will be decided in January, and could involve UDS in modest book losses. In return, it will be releasing a slab of unproductive capital tied up in a business which — with perhaps 3 per cent of the mail order market — seems to be too small to be viable as an independent business. GUS has a very strong position in the industry, but — rather curiously — it seems that because GUS is not actually buying the company, the deal does not hold any interest for the Office of Fair Trading.

Distillers

According to its annual report, Distillers believes that there will be "no more than a modest improvement" in this year's results — and even that sounds quite hopeful. Home sales and exports have dropped sharply in the first quarter, and the profits outcome depends very much on some measure of recovery appearing in the autumn. Meanwhile the balance sheet remains very strong, and although stocks rose twice as fast as sales last year there was little call for external finance. The shares yield just over 7 per cent, and the dividend is 1.6 times covered by current earnings.

PSBR

Even on seasonally adjusted figures, the UK public sector borrowing requirement in the first quarter of 1980-81, at £4.47bn, was more than half the budgeted figure for the year as a whole. Needless to say, there are plenty of excuses, mostly involving semi-seasonal timing factors — which casts some doubt on the usefulness of the present seasonal adjustment — but the £8.5bn plan for the year now looks a forlorn hope. The stock market, though, fit to ignore the figures. Bonities as measured by the All-Share Index touched a new high, and gilt-edged were quietly firm. Some gilt-edged fund managers might be expected to react jumpy to news that the PSBR is running well ahead of debt sales to the non-bank private sector, but they are presumably still on holiday. Moreover, figures for stocks and capital expenditure in the second quarter show clearly why bank lending has been holding up at so high a level. Capital spending — even among manufacturing companies — is holding very close to 1979 average levels, while manufacturers seem to have had trouble shifting their stocks in the second quarter.

Unions seek end to Labour row

BY CHRISTIAN TYLER, LABOUR EDITOR

TRADE UNIONS affiliated to the Labour Party may use their financial muscle to try and halt internal party wrangling on constitutional reforms.

They want the party to reinstate the rule that constitutional amendments cannot be debated more than once every three years, in the hope of getting a conclusion to the row at this October's annual party conference in Blackpool.

Since trade unions are considering whether to withhold the full increase in their party subscription recommended by the recent Labour Party com-

mission of inquiry, putting pressure on the national executive committee to reverse its position on the three-year rule.

The unions will almost certainly demand greater influence over the management of party finances — to which they are the greatest contributors — as a condition of paying the full increase.

This was the overwhelming view at a meeting of the major affiliates in London. It was also suggested that some of the increase should be paid at local level to boost the party's shaky network rather than go auto-

matically to the central treasury.

It was agreed to raise the trade union subscription rate from its present 32p per head per year to 40p next year. But payment of the further increase, to 50p in 1982, is liable to be hedged round with conditions.

A definitive statement of the unions' demands may emerge just before the Blackpool conference when their committee, Trade Unionists for a Labour Victory, is due to meet again.

The general mood of this week's discussions was that, as principal paymaster, the unions should have more control,

especially when such a leap in subscriptions was being proposed. They are tired of the constant re-opening of the main constitutional issues — control of the manifesto, election of the leader, and re-election of MPs. It remains to be seen how the national executive, dominated by the left, responds to the challenge. Relations between the NEC and trade union leaders are not always good. Union leaders tend to accuse NEC members of self-centred power-mongering, while the politicians resent what they see as trade union interference in party affairs.

Bundesbank relaxes monetary policy

By Kevin Done in Frankfurt

THE BUNDESBANK, West Germany's central bank, is to make more than DM 5.5bn (£1.5m) of extra liquidity permanently available to the Federal Republic's banking system in a further cautious relaxation of its tight monetary policy.

It has, however, resisted pressure — chiefly from the trade union movement — for more far-reaching action to stimulate the flagging economy.

Yesterday's central bank council meeting, the first since the summer break, decided against lowering the key discount and Lombard interest rates. These are at a post-war record.

The Bundesbank said it intended instead to cut the banks' minimum reserve ratios by 10 per cent across the board on September 1, to create at least DM 5.5bn long-term extra liquidity.

This step establishes more permanently the careful opening made by the Bundesbank at the end of July, when it made DM 4.4bn of temporary liquidity available to the banking system.

That action, in which extra securities could be parked by commercial banks with the central bank at an interest rate of 9.2 per cent, just below the discount rate at 7.5 per cent, ends next Tuesday. From the start of September banks can enjoy this extra room for manoeuvre permanently, through lowering of minimum reserve ratios.

The Bundesbank is confident banks can bridge the period between the two actions, as they have not taken full advantage of the present minimum reserve levels. The last move to lower the banks' minimum reserve ratios was at the end of April, when an 8 per cent cut was implemented.

The argument over the timing of a cut in interest rates will sharpen over the next few weeks. The West German General Election is due at the start of October.

The Bundesbank recognises that economic activity is beginning to slow significantly, but it faces a dilemma over interest-rate levels because of the continuing necessity of financing this year's expected record deficit of DM 25bn on the current account of the balance of payments through capital imports.

After facing a rapid flight of capital from West Germany in the early months of the year, when currency reserves fell by more than DM 2000, the Bundesbank has gone to great lengths to ensure that the D-mark keeps its position as a hard currency.

As part of this strategy it has held steadfastly to the current record interest rates while ensuring that monetary policy left sufficient room for a modest expansion of the economy.

A move to lower key interest rates is still likely in the next few weeks, but the Bundesbank chose to concentrate attention for the moment, on influencing money market rates. These have fallen considerably since July.

Licensed dealers sue Stock Exchange

BY CHRISTINE MOIR

HARVARD SECURITIES, a firm of licensed dealers whose share dealings are individually monitored by the Stock Exchange, has issued a writ against the Stock Exchange council claiming damages of up to £2m.

Harvard is one of 300 firms which, though neither stockbrokers nor jobbers, are licensed by the Department of Trade to deal in securities.

At issue is the Stock Exchange Council's refusal to enter Harvard on a special list of "professional dealers" which receive large discounts on normal dealing rates. Harvard claims that having to pay full dealing rates is costing it £160,000 a year in lost revenue.

The writ alleges that this damage to its business is due to "the unreasonable and/or

unlawful and/or capricious refusal of the Council to grant an exemption to Rule 211" (which requires members to charge full rates to all but individuals on the list).

The row between Harvard and the Stock Exchange goes much further than the single issue of entry on the VIP register.

Mr. J. W. Wilmut, Harvard's managing director and its largest shareholder with 45 per cent of the equity, claims that it dates back to 1975 when Harvard tried to trade in shares of Burmah Oil when they were suspended on the market.

Since then, Mr. Wilmut has said, there has been "continuing persecution."

Last year, as part of a wider study into irregular "put through" deals — where buyers and vendors are matched in

advance — the Stock Exchange issued a statement which cleared Harvard of creating a false market to shares but announced that all its share dealings were to be monitored.

Yesterday's writ from Harvard claims "damages for libel contained in" the Stock Exchange's statement at the time and repeated in newspapers which printed articles which claimed general damages against the council which, the writ claims, has been engaged in a "unlawful conspiracy to injure the plaintiffs in their trade."

"The sort of problem we have had to face," Mr. Wilmut said, "is being unable to get references from stockbrokers for our dealers." The Department of Trade normally requires such a reference before it issues a

dealer's licence and until recently this had been easily obtained. Mr. Wilmut alleged that the council had recently let it be known that members of the Stock Exchange should not give references to dealers waiting to work for Harvard.

Mr. Wilmut estimates the tangible costs to Harvard's business at about £250,000 a year and believes the intangible losses suffered could be of the same order. With the case not expected to come to court for three to four years he will therefore be asking for damages of as much as £2m.

He denied an accusation that the action was not intended to develop as far as a court hearing but admitted that, if the Stock Exchange entered the firm on the special list, he would probably drop his action.

Weather

UK TODAY

CHANGEABLE, drier in south and east.

London, S., N.E. England, Midlands, S. Wales, Channel Isles Mostly dry, sunny periods. Max 20C (68F).

N. Wales, Isle of Man, N.W. England, S. Scotland Scattered showers, sunny intervals. Max 17C (63F).

N. Scotland Showers, some heavy, bright periods. Max 15C (59F).

OUTLOOK: Mostly dry and sunny, showers in N.E.

WORLDWIDE

		Y-day		Y-day			
		midday		midday			
		°C	°F	°C	°F		
Alajuela	S	26	79	Lisbon	F	29	84
Algiers	F	26	79	London	S	28	82
Amman	F	17	63	London	S	20	68
Athens	F	18	64	Luxemb.	C	17	63
Bahrain	S	26	79	Luxor	S	36	100
Batavia	S	26	79	Madrid	S	28	82
Bombay	C	28	82	Manila	C	31	88
Buenos Aires	C	15	59	Mexico	S	29	84
Buenos Aires	C	15	59	Moscow	S	28	82
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Continued from Page 1

Investment

widespread view that investment is low and sluggish in the UK. A possible explanation is that companies have been increasing investment in labour-saving plant.

Further official figures yesterday show that the price-cutting and sales promotion campaigns of the last few months have brought a substantial fall in stocks of finished goods of wholesalers and retailers, but there has been a much smaller fall in manufacturing stocks.

Retailers' stocks dropped by £237m at constant 1975 prices in the first half of this year, the largest fall on record. But stocks remain historically high relative to sales. The £179m drop in wholesalers' stocks in the first half of 1980 is the highest since 1975.

Manufacturers' stocks fell by only £14m between March and June after a drop of £471m in the previous three months.

In total this is slightly larger than the drop in the first half of 1975 in the last recession.

Continued from Page 1

Reed Paper

£2.9m. Sir Alex Jarratt, the chairman, warned that future UK production of commodity grade papers such as newsprint and case-liners was the subject of "deep and active study."

Writ could worsen Channel chaos

BY OUR SHIPPING CORRESPONDENT

A DISPUTE over an unpaid bill for £12,500 threatens to add to the chaos now prevailing on the cross-channel ferry services. Trinity House, the main UK pilotage authority, has served a writ on the Prince of Brittany, a French ferry, for failing to pay pilotage dues.

The writ expires on Tuesday. If Brittany Ferries, the French owners, do not pay up, the ship could be seized. The French company has warned that, if this occurs, French port workers will refuse to handle UK ferries and all cross-Channel traffic will be halted.

The dispute has arisen because Brittany Ferries, in common with other foreign ferry operators, feels it is being put at a competitive disadvantage compared with UK ferries since its ships have to take on pilots and pay pilotage dues every time

they enter and leave a UK port. British ferries do not need pilots.

Under the 1979 Merchant Shipping Act, foreign ferry captains are eligible for pilotage certificates which would free them of the need for a UK pilot.

The certificates would be issued by the pilotage authorities, but their staff are concerned that their jobs could be at risk if too many certificates are issued to foreign captains.

Although the sums of money involved in the writ are small, both Brittany Ferries and Trinity House see a principle at stake. Brittany Ferries claims it is being discriminated against; the pilots argue that the French company is breaking the law by not paying its dues.

French blockade violence fears

A THREAT of violence hung over the French port dispute yesterday after a warning by M. Raymond Barre, the Prime Minister, that he might use the Navy to ensure oil supplies.

Fishermen's representatives and local authorities were meeting at Marignac, near

Marseilles, to discuss a possible settlement which would lead to a lifting of the blockade of the key oil terminal at Fos-sur-Mer.

The fishermen's dispute continued to prevent ferry traffic between France and England.

Page 2

Times peace talks adjourned

BY NICK GARNETT, LABOUR STAFF

NEGOTIATIONS between journalists and management at The Times aimed at averting a strike from noon today were adjourned last night until this morning.

Representatives of the management and the National Union of Journalists declined to comment when they left ACAS offices.

The management told the journalists earlier this week that it could not afford to improve on its original 18 per cent pay offer.

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